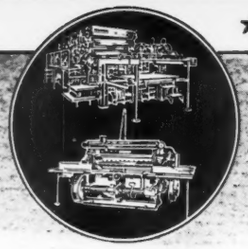
PRINTING EQUIPMENT Engineer

JULY 1945

POSTWAR PRESSES AND CUTTERS

★ ★ ★ ★ ★ ★ ★



THE immediate prewar products of Harris-Seybold were the best on the market. Years were required for their development. When the war started, a redesigning program had been only recently completed. Working under extraordinary conditions, Harris-Seybold equipment has delivered outstanding wartime service. It had to be *right* to do its job.

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"I love a rooster for his crow . . .
and the spurs he has to back it up."
Bill Nye

NOWHERE else on earth do people enjoy greater freedom to express ideas and opinions than here in the United States. And no country exceeds it in the number of busy printing presses. Typically American, is this free spread of printers' ink, and years ago Bill Nye caught the flavor of it in the above quotation.

It is good that we are free, fearless and articulate — and have "the spurs to back it up". For we still have one remaining enemy to crush. And with the nation's attention focused as well on the problems of shaping a framework for future world peace, there will be ever greater need for the rapid spread of information and opinions to develop nationwide awareness, understanding and unity. In this our newspapers are indispensable.

At this point permit us to do a little crowing about Hoe equipment — in particular, the Hoe Super-Production Press on which so many of the country's newspapers are being produced. With its modern design and advanced features, its high speed and fine printing quality, it is really something to crow about. And its low, even hum bespeaks thorough efficiency and smooth operation aided by dynamically balanced parts rotating in anti-friction bearings. But perhaps the greatest boosters for these splendid presses are the many present users for whom they are doing a superlative job even after the wear and tear of four years of war.

Just as soon as restrictions are sufficiently relaxed Hoe will be ready to resume the manufacture of more up-to-the-minute Super-Production Newspaper Presses for the nation's mechanical executives. In view of commitments already made, early consultation with a Hoe representative is sincerely suggested to all who contemplate new equipment.

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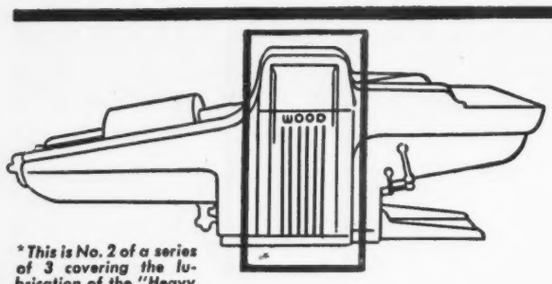
War-Time Maintenance Suggestion

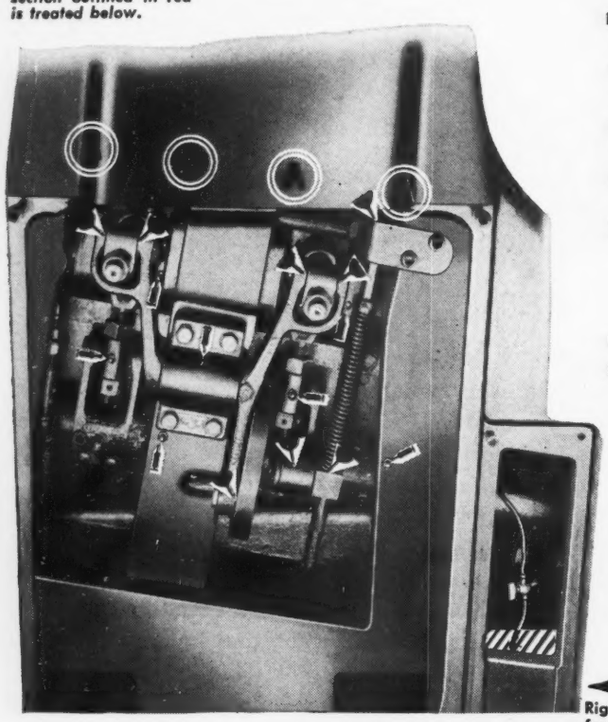


**This is No. 2 of a series of 3 covering the lubrication of the "Heavy Duty Autoshaver." The section outlined in red is treated below.*

For Lubrication of

HEAVY DUTY AUTOSHAVER

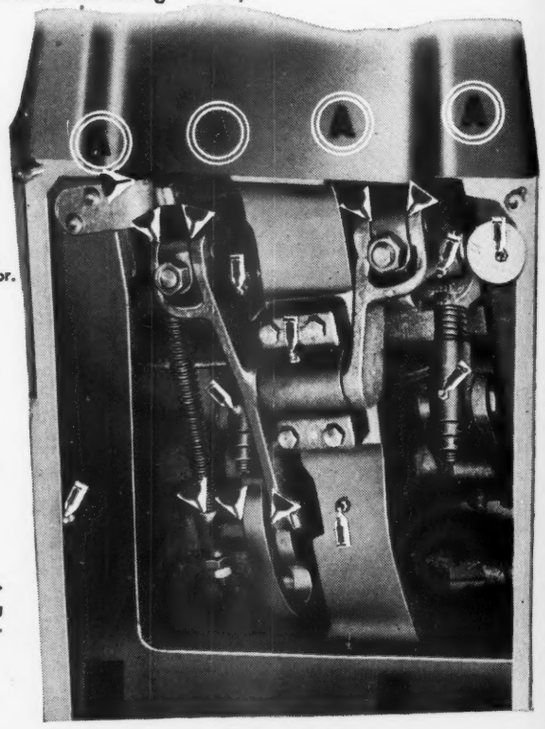
Your Wood Heavy Duty Autoshaver will give years of uninterrupted service if properly lubricated. The procedure is simple and will repay you many times over.



Indicates a Zerk fitting. The gun furnished with the Heavy Duty Autoshaver for this purpose should be used with a good grade of alemite. Lubrication period — every six months.

Indicates the use of ordinary oil can. Use S.A.E. No. 30. Period for oiling — daily.

RIGHT
Right side looking forward from motor.



Indicates oil reservoir. Remove plate and fill with S.A.E. No. 20 oil. Reservoir should be checked once a week.

A Indicates the eight rollers under the arch. These should be removed every six months and thoroughly packed with grease.

LEFT
Left side looking forward from motor.

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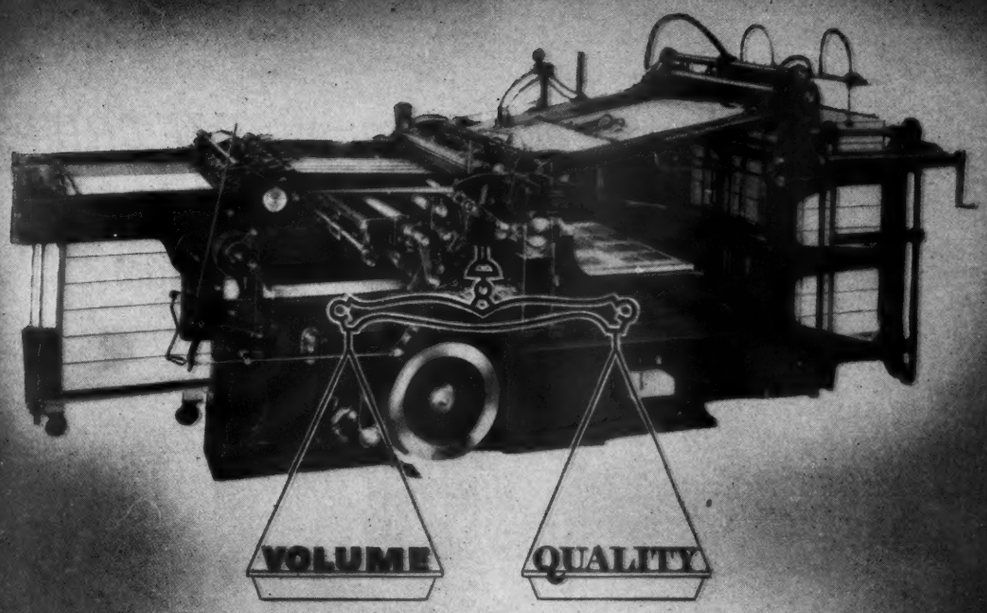

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—and distinctly characteristic of Miller Automatics

miller

THAT'S the way Harold J. Hersinger, President, Alexander Hamilton Printing Co., Paterson, N. J., found he could keep profitable offset jobs from going out-of-town. He put in an offset department of his own . . . ATF Chief press, camera, and plate-making equipment. He says, *"now we can serve our customers better, and keep the business right here where it belongs."*

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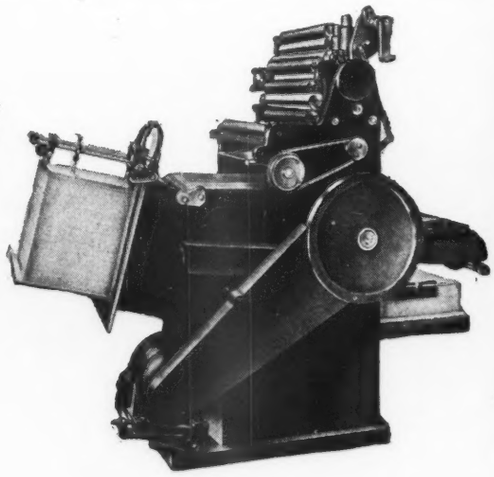

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PRINTING EQUIPMENT *Engineer*

Volume 70 **Number 4**

A technical publication for the mechanical executive responsible for printing production, equipment and supplies in the commercial, magazine, private plant and daily newspaper field.

PRINTING EQUIPMENT Engineer, Published monthly at 1276 West Third St., Cleveland 13, Ohio.

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Subscription price per year, $3.50 in advance in U. S. A. Single copy current issues 35c; feature issues $1 per copy; December Equipment and Supplies Catalog Issue $1 per copy. Subscriptions in foreign countries as permitted for duration $4.50 (U.S. currency) in advance. Canadian printing plant mechanical and production executives receiving **Printing Equipment Engineer** under CCA regulations will be charged $1 postage per year in advance to cover additional postage to Canada.

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TECHNICAL BOOKS

STANDARD BOOK ON ESTIMATING for PRINTERS—By Fred W. Hoch. Revised 1941 edition. This book is a primer for students and a reference for printers and estimators. Every printing plant should have a copy. Author explains all operations in commercial printing plant and shows production time allowance for each in hours and decimal hours. Size, 6 in. by 9¼ in., 268 pages, $3.75 per copy, cash with order.

PRINTING INKS—Their Chemistry and Technology—**By Carleton Ellis.** Bound in clotn, 6 in. by 9½ in., 560 pages, well illustrated. For printing executives, pressmen, photo-engravers, platemakers, ink manufacturers, chemists, paper-makers. Author stays close to printing plant. The solving of new production problems brought about by technological improvements, both in equipment and inks, created the urgent need for this book. Price $7, cash with order.

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PHOTOGRAVURE—By H. Mills Cartwright. Covers all of photogravure's basic principles in concise and readable language. Rotogravure receives minor discussion but this is generally considered best textbook on photogravure process. Contains 202 pages, 34 illustrations, maroon cloth, size 6¼ in. by 9¼ in., $3.50 per copy, cash with order.

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PRESSROOM PROBLEMS AND ANSWERS—By Fred W. Hoch. Might be consdered a miniature encyclopedia since it contains answers to 334 pressroom problems which have been answered by Mr. Hoch. Written in language of journeyman pressman. Pressmen, production men, paper and ink manufacturers, electrotypers and photoengravers will find this book of high utility when pressroom problems arise in which tendency is to lay blame on furnished materials used in pressroom production. Size, 6 in. by 9½ in., 258 pages, gold stamped blue cloth. Price, $2 per copy, cash with order.

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HANDBOOK FOR PRESSMEN—By Fred W. Hoch. Book written by authority on all phases of flat-bed letterpress production for the practical pressman. Contains 248 pages, 26 illustrations and 24 charts, $3 per copy, cash with order.

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PRINTING EQUIPMENT *Engineer*

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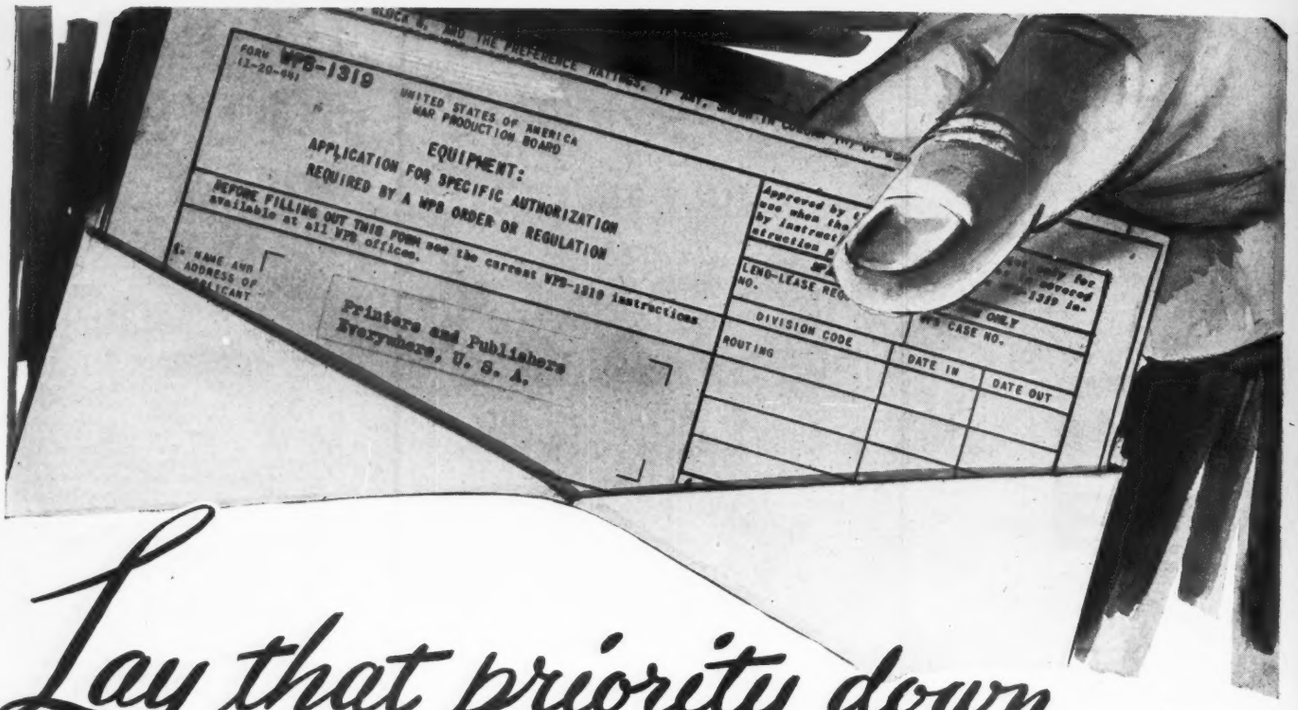

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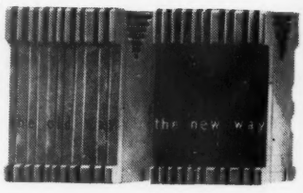

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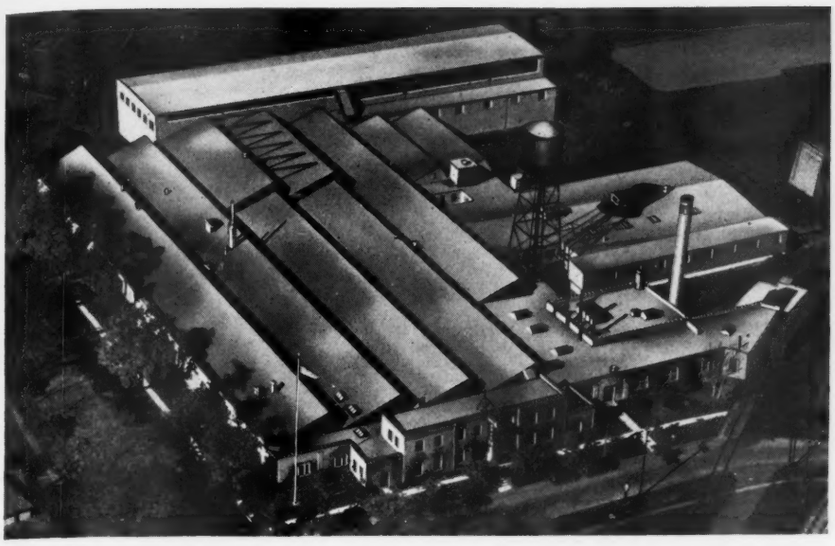


Aerial View of Kable Brothers Co. Plant in Mt. Morris, Ill.—The buildings afford three and one-half acres of floor space mostly on one level. The majority of the buildings are of saw-tooth construction. The C. B. & Q. R. R. (Burlington Route) and State Highway 64 provide ample transportation accommodations. Heating facilities are provided in the plant. Electric power is purchased from Illinois Northern Utility Co. A standby plant, however, is maintained by Kable. It consists of three units of Fairbanks-Morse diesel-driven generators totaling 540 h.p. But this power equipment, is capable of furnishing only about half the electricity required to operate the plant fully.

Big Printing Plant in Rural Community

Illustrated trip through nationally known Kable Brothers Co., Mt. Morris, Ill. — Firm produces magazines and periodicals ranging from 500 to 1,000,000 circulation monthly — $700,000 after-the-war plant and equipment program

By MacD. SINCLAIR

TUCKED away in a rural community in the rolling land of northwestern Illinois is a modern magazine and publication plant. The usual conception of the average printing executive is that large-volume printing plants should be located in or on the rim of metropolitan areas. The Kable Brothers Co.'s plant in Mt. Morris, Ill., is 105 miles west of Chicago. To show its proximity to a metropolitan center, however, this writer boarded a Burlington Zephyr streamlined train in Chicago and in 1 hr. and 21 min. flat was deposited in Oregon, five miles from Mt. Morris. A cheerful auto driver brought him to the front door of the Kable plant—the entire journey taking not more than 1½ hrs.

It is not intended in this article to explain in detail the entire business and mechanical operation of the Kable plant, but rather to present some of the phases which are of interest to printing executives, particularly those who are not familiar with the specialized business of magazine and publication printing.

A closely-knit executive personnel is responsible for smooth plant operation. This will be apparent after reading interviews with a number of the plant executives printed below. That close attention to the importance of the human element brings its own reward to management is evident in the Kable plant. All production and mechanical executives, through the medium of daily production board meetings, know exactly what is going on in the plant at all times and what is expected of them from day to day.

Values Personal Executive Contact

An interview with Harry G. Kable, president of Kable Brothers Co., brings the impression that he is a modest man, yet he is proud and appreciative of the

Three of the Principal Executives of an Outstanding Publication Printing Plant

Harry G. Kable (left), President of Kable Brothers Co., Magazine and Publication Printers, Mt. Morris, Ill. Quiet spoken and modest, his chief concern in addition to sound business administration, is for intimate personal contact of all executives with the entire plant personnel.

Milo Zimmerman (upper right), Secretary and Sales Manager, doesn't mind doing great bulk of Kable's business from town of 2300 inhabitants with customers in widely separated geographical locations. Mr. Zimmerman recently joined the American Red Cross. For the next 12 to 18 months he will be engaged in rehabilitation work with men in the Armed Forces.

Harold Ross (lower right), Director and Superintendent of Kable Brothers Company, supervises executive personnel responsible for the endless flow of magazines and periodicals. His responsibilities in directing production coordination keeps him quite busy. He is well known nationally among members of the International Association of Printing House Craftsmen.

A Typical Kable Production Board Meeting—Every morning a meeting of the production staff and departmental foremen is held. While this illustration does not represent a full production board meeting, it is sufficiently representative of one of the finest means for obtaining executive cooperation and production control.

Left to right: Maurice Samsel, Production Manager; Leland Rittenhouse, Assistant Production Manager; Gerald Powers, Personnel Director; Harold Ross, Superintendent; Milo Zimmerman, Secretary and Sales Manager; Frank Hilger, Bindery Superintendent.

At these meetings, the day's problems are discussed with reference to production, labor and machinery. Every departmental executive gets the same information first-hand and he doesn't have to take the time to ask anyone about important information.

SHOP INSTRUCTIONS

DATE _____

CUSTOMER _____ JOB NO. _____

ADDRESS _____ SALESMAN _____

DESCRIPTION	TITLE _____ QUANTITY _____ NO. OF PAGES _____ BLEED _____ TRIMMED SIZE _____ TYPE PAGE SIZE _____
PAPER	INSIDE _____ WEIGHT _____ QUANTITY _____ TO BE PURCHASED FROM _____ COVER _____ WEIGHT _____ QUANTITY _____ TO BE PURCHASED FROM _____
COMPOSITION	TEXT _____ DISPLAY _____ PROOFS _____
ROTO ART	
ENGRAVINGS	HALFTONES _____ ZINCS _____
ELECTROTYPES	INSIDE _____ SETS—P. B.—MOUNTED—FOR RUNNING _____ UP—WT.—SW. (STATE WHICH) (WHICH) COVER _____ SETS—P. B.—MOUNTED—FOR RUNNING _____ UP—WT.—SW. (STATE WHICH) (WHICH)
PRESSWORK	INSIDE _____ COVER _____
BINDING AND PACKING	
MAILING OR SHIPPING	
SCHEDULE AND DELIVERY	
SPECIAL	

Miniature Reproduction of the Shop Instructions Blank—Superintendent Harold Ross calls it a "Dope Sheet." When a new contract for printing a publication comes into the plant of Kable Brothers Co. in Mt. Morris, Ill., the sales department fills in all the technical information and specifications to enable production department to proceed intelligently. As will be seen, all specifications such as paper, ink, illustration, typographic and other details are entered on this sheet. The production department in turn passes along the proper information to all plant executives at regular meetings of the production board.

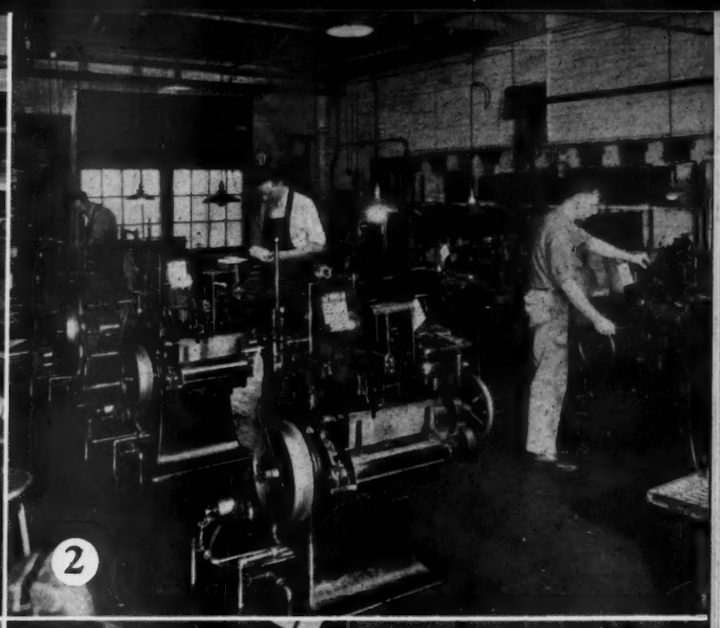
institution which represents the painstaking labor of himself, his late twin brother, Harvey, and his associates, from a small beginning in 1898 in Mt. Morris.

The outstanding concern of this executive exclusive of sound business administrative policies, seems to be deeply rooted in the personal equation of the executives and employees who keep busy in the plant. During the course of the conversation some mention was made of the possible future expansion of the Kable plant. In this connection he said: "When an organization gets so big the boss can't know everybody personally, then a condition exists which is not good for the business. We haven't any desire to become very much larger because extreme growth brings with it the inevitable loss of that personal contact with employees by our executives. This personal contact is valued highly among our people."

Mr. Kable expressed himself as believing that a company should grow gradually rather than in a precipitous manner. In the case of the Kable Brothers Co., the company's growth has been gradual over the years. The business and equipment have been expanded by adding new printing contracts gradually and corresponding equipment one piece at a time. "In this way," said Mr. Kable, "building for permanency is assured."

Mr. Kable spoke enthusiastically of the period to follow the war. Executives

(*Continued on Page 15*)



The Kable Composing Room—This department is operated two shifts per day. It is in charge of Foreman Arthur Barre. Clean and well lighted, it is a pleasant place in which to work.

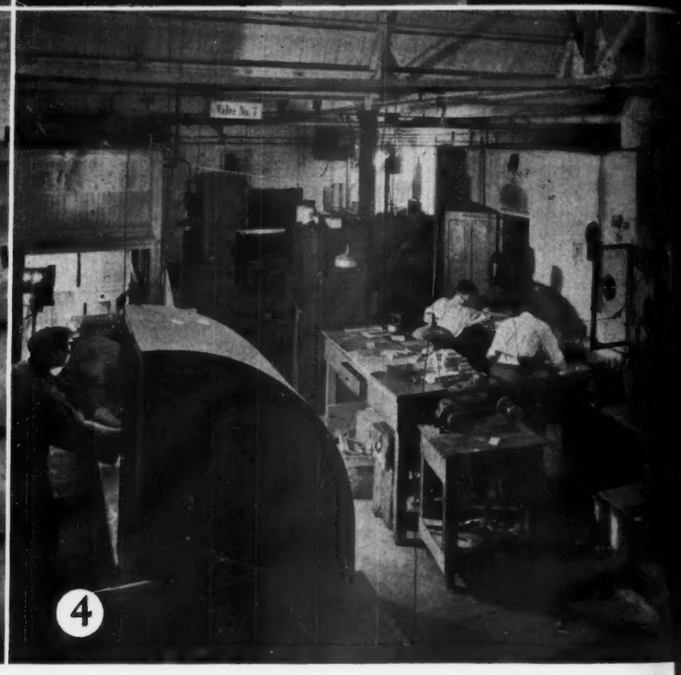
1—General view in hand and makeup departments.

2—View in Monotype caster room.

3—Sixteen Linotypes furnish bulk of text composition for the 140-odd publications printed by Kable.

4—View of Kable morgue or cut library. More than 60,000 cuts of one kind or another are on file. This department is in charge of Foreman Francis Asp, who with three assistants keeps the records straight. Large books contain pages bearing proofs of customers' cuts. The pages are numbered to correspond with the numbers of the shallow drawers in the tiered cabinets.

5—Locking up an electrotype color plate form on metal base.



PLATEMAKING DEPARTMENTS IN PLANT OF KABLE BROTHERS COMPANY

Electrotype Foundry—In the electrotype foundry, which is in charge of Foreman George Priller, an average of 162 plates per day or 3000 per month are produced, although in December 1944 this department made 4000 plates.

Incidentally, approximately 50 per cent of the composing room production is locked up in forms and delivered to this department.

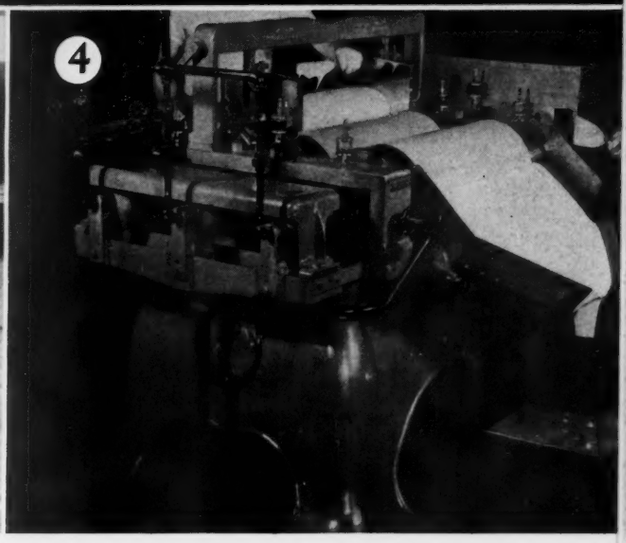
1—At left is shown a Cottrell-Claybourn plate curving machine.

2—At right is a Cottrell-Claybourn rotary electrotype proving press.

3—Gravure Platemaking — Here is shown a view in the cylinder storage room. The cylinders have been coated with copper, have been ground to a fine and accurate finish and are ready for processing. The rotogravure platemaking, or more properly, printing cylinder-making plant, is well equipped. There are two black-and-white and one color camera. The department is in charge of Harold Creeden. The photo gallery, retouching, laydown, etching and cylinder grinding departments have up-to-date equipment. The Ballard system is used for plating the printing cylinders. The thickness of the copper shell deposited on the steel cylinders is finished off to a uniform thickness of 0.005 in. We think our readers will agree this is pretty close tolerance.

Cylinders are etched by hand via stone jug containing the solution and rubber gloves under the supervision of Merrill Keller.

4—Photo-engraving Department. This department is in charge of Foreman John McChesney. This view shows the mounting and finishing department. Cameras with supplemental equipment are kept busy here turning out straight halftone and color work. No mean task is the production of 30,000 sq. in. of good engravings per month.



Views in Various Sections of Kable Brothers Co. Plant, Mt. Morris, Ill.—Views like these are of great interest to mechanical and production executives because they represent important phases of production.

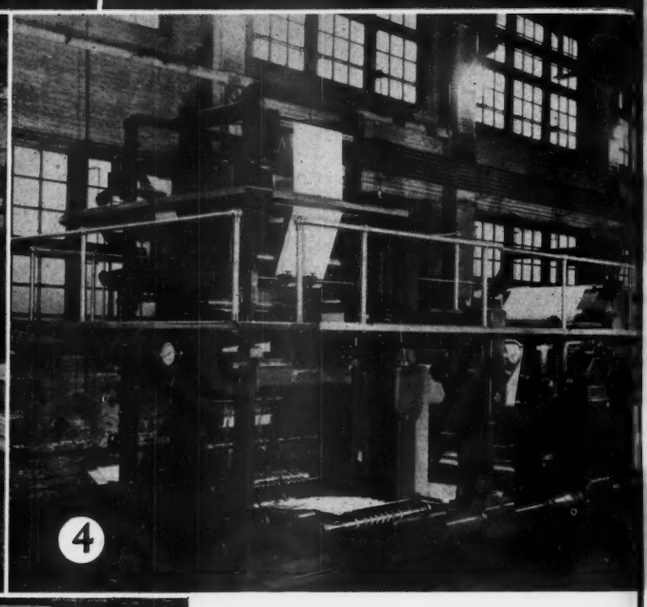
1—Here is a section of the press roller storage department. The rollers are stored vertically in a type of rack devised by Sam'l Bingham's Son Mfg. Co. Non-meltable composition and vulcanized oil rollers, mostly, are used on Kable presses. Not shown in this illustration is a Bingham roller coating machine. This type of roller storage insures economical use of floor space and also (from a mechanical standpoint) is the proper manner in which to store rollers rather than by placing them for any length of time in horizontal position.

2—In this paper warehouse may be stored 200 carloads which is three months' supply. Kable uses annually 12,500 T. of paper. Paper is brought to this warehouse both by truck and a railroad siding. The siding accommodates five freight cars at one time. The 5 T. Whiting Tiger crane is an efficient mechanism. It glides silently from the farthest end of the warehouse to the immediate proximity of the pressroom where it hovers quietly over the reel ends of presses or thereabouts to ease bulky burdens gently to the floor. The man in the platform makes this cumbersome mechanism "behave" with great skill. As many as three rolls may be transported at one time. A helper on the floor loads the sling in the case of rolls or the skids in the case of flat papers.

3—Nothing Must Be Wasted—In the rear of the Kable plant, this Galland-Henning hydraulic baler compresses paper trimmings into bale form and binds the bales with wire. Paper bales average 1000 lbs. each but may run as high as 1800 lbs. in weight according to the kind of paper. Paper trimmings are automatically delivered into the bin at the left by a system of large sheet metal pipes through air suction. The operator, using a pitch fork, loads the trimmings into the Galland-Henning baler, spreading them evenly to pack the bale properly. Movement of a lever causes the ram to rise from a chamber underground to compress the trimmings.

In the paper warehouse is another Galland-Henning baler which is actuated by mechanical compression. Every scrap of waste paper is disposed of in the market to be reclaimed for further use.

4—Ink Department—The printing ink department is in charge of William Davis. In this department two grinding mills are used, as are two mechanical mixers. About the walls of the department are shelves loaded with cans of ink of various colors. Ink is requisitioned out by the press foremen as needed. One cannot help but observe that this department is very clean—it's cleanliness makes one wonder how it is done.



Press Departments

Presses of varying sizes and capacities, 4[illegible] in number, are in operation in the press sec[illegible] tion of Kable plant. These machines rang[illegible] from jobbers to a 128-page Goss rotary.

Flatbed Pressroom—In the Kable flatbed pressroom, 29 presses of varying sizes and makes turn out color cover work and also magazine black printing where the run is not sufficiently large to warrant plating for a rotary press. Among them are Miehle Verticals and Miehle single and two-color flatbed presses; single and two-color Millers, and ATF Kelly presses. The job department is equipped with 6 small automatic presses of various types.

The two-color flatbed presses are used mostly for four-color cover and insert work. For instance, yellow and black are printed on one two-color press; then the red and blue colors are printed on another press of the same make after a drying interval of 6 or 8 hours between the printing of the first and last two colors.

In the multi-color printing section are a Cottrell-McKee press, a Cottrell-Claybourn five-color press, and two Cottrell-Claybourn two-color presses.

Ernest Yerkey is foreman in charge of all cylinder or sheet-fed presses.

Rotary Pressroom—The circulations of some of the magazines printed by Kable Brothers Co. are of such quantity that the printing must be done on large capacity rotary presses printing from electrotype plates. Altogether, there are 11 machines in the rotary press department, including two 5-unit and one 3-unit latest type rotogravure presses. All three leading rotary press builders are represented—C. B. Cottrell Sons & Co., R. Hoe & Co., and Goss Printing Press Co. Louis Incontro is in charge of the rotogravure presses. The presses are equipped with folders and tape deliveries which require the services of fly boys. On the five-unit presses three colors may be printed on one side of the web and two on the other side, or four colors on one side and one on the other side of the web.

In the black letterpress section of the rotary pressroom are eight presses, supervised by James Fisher.

Three of the rotary letterpresses are the latest type Goss magazine presses and a Goss tabloid press with folder. In addition, there is a Goss rotary with 8 printing units having a capacity of 128 pages in black or 64 pages in two colors. The crew has dubbed this press "Big Bertha." In this department also are operated three Goss 96-page web-feed rotary presses. In addition to a smut roll device for preventing offset on the first impression printing, a novel drying means has been fitted to the press. This device consists of open gas flame burners extending across the width of the paper web. Two burners are superimposed parallel to each other and about 18 in. apart after the second impression unit to dry the first impression printing, and one burner is mounted below the web to dry the ink on the second impression side of the paper. The flames are extinguished or turned on automatically with the stopping or starting of the press.

The illustrations on the opposite page are explained as follows:

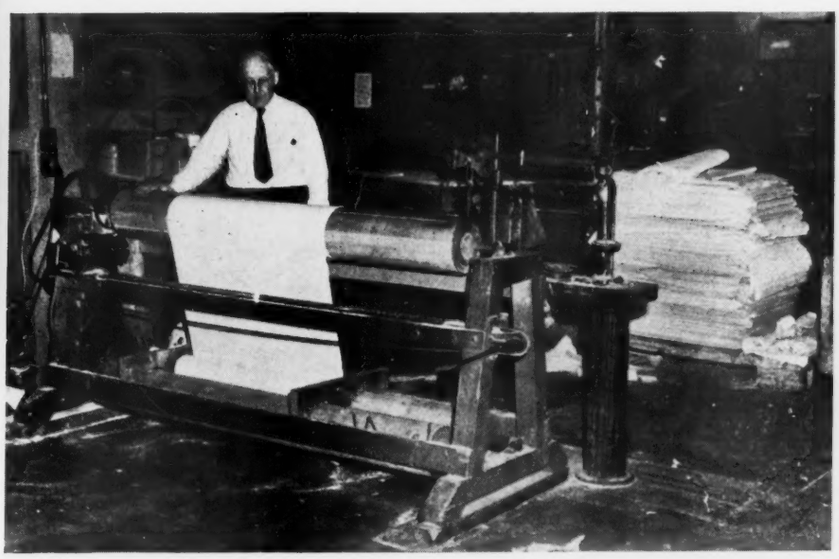
1—A Corner in the Job Press Department—Here are shown two of the Miehle Vertical presses and an ATF Kelly press in operation.

2—In the foreground is a Miller Simplex press.

3—View of Claybourn Multi-Color (five colors) rotary press, 37 in. by 52 in., which delivers 3500 printed sheets per hour.

4—View of Goss high-speed rotary letterpress magazine press. Delivers 16,000 copies per hour printed and folded in 8¾ in. by 12 in. size.

5—View of one of the three Hoe rotogravure presses operated in the Kable rotary press department. Magazines of large national circulation are printed on these presses. The press is operated with enclosed units, Offen drying ducts extending above the press carry away all vapors from the ink used in gravure printing. In addition a system of ventilating ducts exhausts air from the pressroom to the outside of the building. The capacity of this five-unit press is 16,000 folded copies per hour, of 48-page signatures.



Paper Roll Butt Unwinder and Slitter—Removal of what might otherwise be core waste from the roll cores taken from the rotary presses has been simplified in the Kable plant. H. E. Longman, stockroom superintendent, designed and built the device shown above. In the illustration do not confuse the scale mechanism with that of the unwinder and slitter.

The sheeted paper produced on this machine is used for printing many kinds of jobs. Some of it is used for copy paper.

The scales with platform is between the unwinder and the pile of paper in the background.

As will be seen upon studying the picture, the frame of the unwinder and slitter is substantially constructed of wood. At the top of the frame is a wooden roll approx. 12 in. in diam. and of sufficient length to accommodate 72 in. paper. The roll is driven by a 1¼ in. flat belt connected to a 2 h.p. motor.

In the lower part of the frame are mounted two wooden rollers free to idle through friction when a core butt is rotated. The core butt to be unwound is laid in the depression formed by the two idling rollers. When a butt is laid upon the idling rollers, two end pieces are slid against the butt to keep the butt in firm contact with the rollers and also to preserve alignment of the paper once the unwinding operation has been started. The end of the paper is wrapped around the upper roller just enough to insure traction. The motor is started and from this point on the unwinding operation is automatic.

After the paper has been completely unwound from the butt, it is slit lengthwise by a circular saw which is moved longitudinally underneath the paper. After being slit, the paper (now in sheet form) is lifted off the upper roll. At the rear of this illustration may be seen a pile of sheeted paper which is ready to be sent to the paper cutter where it will be trimmed down into sheets of required sizes.

The slitting saw which is of the novelty type, is 5 in. diam. It is mounted on the armature shaft of a 1/6 h.p. motor running at 1750 r.p.m. The motor is fastened to a bottom plate which in turn runs in a steel guide from one end of the unwinder to the other. The saw motor is connected through a chain to a sprocket wheel at the right side of the machine. While the saw is revolving, a hand crank is turned to cause it to travel underneath and lengthwise of the cylinder.

The Maintenance Department—Not to be overlooked in any plant is the Maintenance Department. In the Kable Plant this department is under the supervision of Axel Johnston and includes control of the four Kewanee Boilers used for heating the plant. There is also a sizeable force of janitors and watchmen necessary to keep the plant in order all of which is supervised by this department. There are machinists and electricians who keep the machinery in good running order and to keep in repair electrical equipment such as motors, controls and the varied automatic electric controls installed on many of the high speed machines. This department contains machine tools of the necessary type for cutting glass and making replacement parts, the advantage of which is quite obvious. It is a rare occasion and one of major importance when it is necessary to call in outside assistance on machine repair or electrical work.

Publications Processed Quickly in Kable Bindery

1—Two Sheridan gathering, stitching, gluing and covering machines automatically gather and stitch magazines and deliver them with glued covers to the conveyor at 6000 copies per hour. The magazines are conveyed directly to the trimming room.

2—One of four Christensen hand-fed gathering machines with automatic stitching head. Products from these machines are deposited by one of the operators in neat piles on the wide horizontal conveyor belt, part of which is shown in lower left corner.

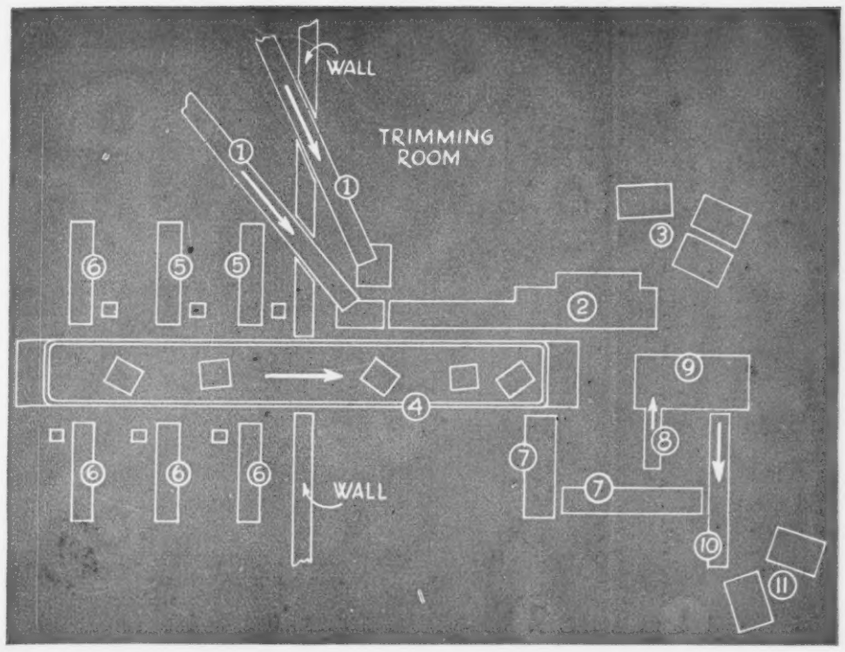
Modern Magazine Binding—A highly mechanized department is the Kable trimming and binding department. In addition to the machines which seem to have an insatiable appetite for trimming and binding publications, the workflow has been streamlined through the folding, gathering and stitching sections so that publications are delivered automatically by conveyors to the trimming room. It is a fascinating sight to watch the streams of printed, stitched and folded publications being delivered to the trimming room, especially if one can appreciate the tremendous amount of planning, composition, platemaking and presswork which has taken place before it would be possible to disgorge such copious quantities of publications directly into that trimming room.

Two Juengst gathering and binding machines (not shown in the illustrations) are used for large publication work where several signatures or sections are to be gathered automatically and the sections are to be stitched together with wire staples, after which the covers are folded and glued automatically on the stitched publication. After being processed on these machines, the publications are ready to be sent to the trimming section of the bindery. In general, a Juengst gathering and binding machine is a rather lengthy affair because of the platforms or feeding boards which are provided (one for each section) progressively along a conveyor "belt". Automatic arms equipped with suckers at each station pull down each section on top of the previously assembled signatures as they pass each station on a conveyor belt. At the end of the line the signatures are stitched, the binding edge glued and the cover is affixed automatically.

Two Sheridan automatic machines represent another type of automatic gathering mechanism used in the Kable bindery. The machines automatically gather up to six signatures ranging from a cover to 48 pages. The signatures, of course, are gathered progressively and saddle-stitched with cover at 6000 copies per hour. The machine deposits the completed magazines upon a conveyor running to the trimming room.

Eight six-station (two Sheridan automatic and six Christensen hand-fed gathering and stitching machines are in operation. Six of the eight machines deliver the gathered and stitched signatures upon a table from which they are removed by an operator who places them on a moving conveyor belt in certain quantities in each pile at her side. These six machines are located three on either side of a conveyor belt. Products from the gathering machines are also delivered automatically to the trimming department but by the horizontal conveyor belt.

Eight Dexter and three Cleveland folders are a considerable part of the bindery equipment. These machines fold forms from the flatbed pressroom as well as covers printed in both the multicolor and flatbed press departments.



How Kable Publications are Conveyed to Trimming Room—This diagrammatic sketch is not drawn to scale. It is intended only to illustrate how publications are delivered automatically to the trimming room in the plant of Kable Brothers Co., Mt. Morris, Ill. The equipment items in this diagram are represented by the following figures:

1—Belt conveyors deliver magazines in continuous overlapped stream.

2—Sheridan trimming machine.

3—Trucks for receiving trimmed magazines for delivery to mailing room.

4—Flat 20 in. wide horizontal conveyor belt.

5—Sheridan automatic gathering and stitching machines.

6—Christensen hand-fed gathering machine with automatic stitcher.

7—Wood hand jogging tables.

8—Feeding-in trough of Seybold automatic trimmer.

9—Seybold automatic trimmer.

10—Delivery conveyor section of Seybold automatic trimmer.

11—Trucks for receiving trimmed magazines for delivery to mailing or shipping room.

Each of the three separate sections of the trimming room is explained as follows:

Belt conveyors *1* bring magazines in overlapped continuous stream either from the Juengst or American automatic gathering, stitching and gluing machines to jogging tables in the trimming room. An operator takes the magazines from the conveyor in convenient bunches of 20 or 25 copies, and then places them in the feed trough of the Sheridan automatic trimmer *2*. This machine is approx. 21 ft. long. It takes the bundles of magazines from the trough to a knife which trims the right side of the magazine, then moves it forward to a second set of knives which trims the top and bottom of the magazines, after which the bundles are placed in hand trucks *3* for delivery to the mailing or shipping department. The capacity of this trimming machine is 500 bundles per hr.

Saddle-stitched magazines are gathered and stitched on the machines *5* and *6*. The two Sheridan automatic gatherers and stitchers *5* are machine-fed from pockets containing the signatures at 6000 copies each per hour. Over 100,000 copies of magazines have been processed on one machine in two 8 hr. shifts. There are four Christensen hand-fed gathering and stitching machines *6*. The capacity of each of these machines is 3500 copies each per hour.

The 20 in. wide horizontal conveyor belt *4* takes magazines in piles placed upon it by the operators of machines *5* and *6* to the trimming room where they are hand-jogged on tables *7*. They are then put into the feeding-in trough *8* of the Seybold automatic trimmer *9*. After being trimmed they are forwarded by the delivery conveyor *10* and are loaded into hand trucks *11* for delivery to the mailing department or to the shipping room where they are wrapped in bundles for delivery to newsstand dealers.

(*Continued from Page 8*)

of the company have planned a postwar building and equipment program which consists largely of consolidation and equipment modernization with minimum plant and business expansion.

"Just like any other printer, we are subject to the laws of Old Man Obsolescence," he remarked, "and we are conscious of these laws especially with respect to rotary presses."

It is not at present in the plans of the Kable organization to expand the company's business into other lines of work. Rather, it is contemplated to strengthen the business of magazine and periodical printing. "We will continue to specialize in the thing we know how to do best and at which we have been successful," he said.

In speaking of inter-plant consolidation moves, Mr. Kable said that the photo-engraving plant, for instance, is located in a separate building away from the main plant at the present time. Also, when a new addition to the main plant structure has been completed, the feeding end of the new presses will be located right near the paper storage room. These and other desirable rearrangements including relocation of the foundry and the mailing room will take place when the time arrives for erection of a new two-story building addition.

"Our postwar building and equipment program," continued Mr. Kable, "includes approximately $200,000 for the two-story building addition to the main plant and the expenditure of approximately $500,000 for new equipment, all of which has been ordered."

Plant "Grew Up" in Present Location

Moving on in our quest for more information, we talked to enthusiastic Milo Zimmerman, secretary and sales manager. He explained that more than 140 publications are printed each month in the plant of Kable Brothers Co. Approximately 50 per cent of these are fraternal papers. The fraternal papers are printed entirely by letterpress—both flatbed and rotary. The rotogravure platemaking and printing process is used only for magazines of national circulation.

The writer, not being any too familiar with the history of the Kable enterprise, asked Mr. Zimmerman why the plant was located in the small town of Mt. Morris—was it to avoid labor troubles or just to get away from the complications of doing business in a big city?

Mr. Zimmerman replied: "Neither. The twin Kable brothers with a sister started in business here in 1898 by purchasing a small weekly newspaper. The business has grown because of the pursuit of an idea and faithful adherence to it—that of printing publications for fraternal orders. Up to that time, no one had explored the idea or its possibilities. Today the firm is known as a specialist in printing fraternal society publications, about one-third of its total printing volume being of this nature.

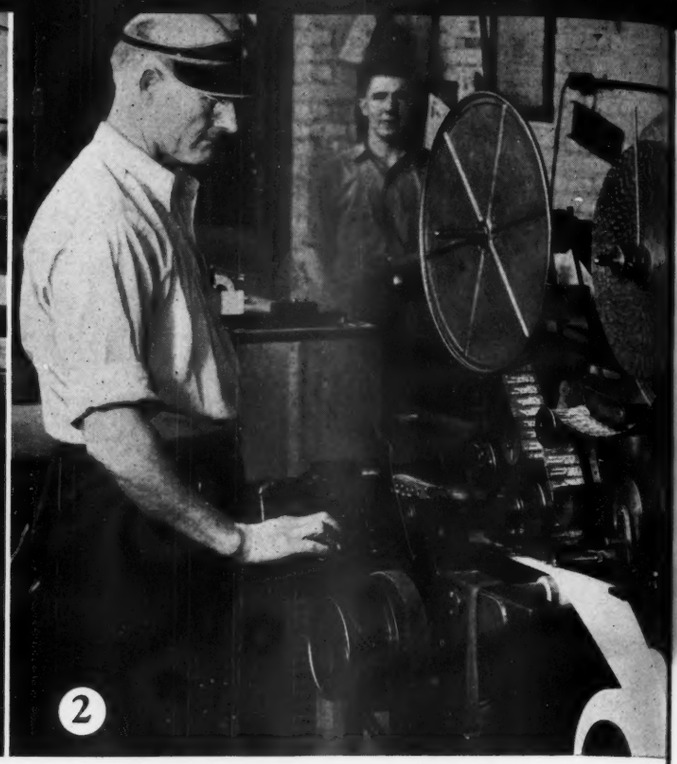
"The plant was started in Mt. Morris as a small enterprise and over the years has grown into its present size. We now feel there are definite advantages in being located in a small town, some of which will be related to you by other executives."

At the present time, the floor space area covered by the Kable plant is in excess of 160,000 sq. ft. The initial working force of three people, drawing a total weekly pay of about $15 has now become a force of about 750 with an annual payroll of $1,600,000. The $800 original capital has increased to $1,250,000.

The working force, incidentally, would be much greater in number than that but the fact that approximately 221 employees are in the armed services. Kable Brothers Co. is a union shop.

Small-town Life is Worth While

When asked if there is any difficulty in retaining employees in a town of 2300 population, even though Kable Brothers



A Peep Into the Kable Mailing Department—A finicky thing is a mailing list—it must have meticulous attention and requires the supervision of specialists. If you have ever had experience with the vagaries of mailing lists and the necessity for keeping readers satisfied, then you will understand the care required to keep lists in good order. In the Kable mailing department, 75 girls are needed to make the monthly corrections in lists which total about 8,000,000 names on metal plates. This department handles about 100 separate lists each month, so it will be seen that Kable should know something about the vagaries of mailing list maintenance.

Several score girls address, wrap, sort and mail, by hand mailers alone, an average of 150,000 papers and magazines each day. This is in addition to the half million or more pieces addressed on the automatic machines described below.

In the addressing department, 22 girls operate as many Pollard-Alling stencil cutting machines. When the embossed address plates or stencils have been punched, other girls insert the new or corrected plates in a large reel in proper geographical and alphabetical position. Mailing requirements for the various publications differ. Some are mailed out in bulk with the address stamped directly upon the cover, while others must be wrapped. The reels mentioned above are placed in two kinds of printing machines.

There is a Pollard-Alling wrapper printing machine which prints directly on wrappers from the stencil reels, and four Pollard-Alling machines printing addresses directly on the magazine cover. In this department there is also an envelope addressing machine which is like the machines just mentioned except that it prints from the stencil plates upon envelopes at the rate of 10,000 envelopes per hour.

One of the interesting set-ups in the mailing department consists of three Anderson wrapper folding machines which take addressed wrappers and automatically fold single copies of publications and wraps and pastes them at approximately 2,000 copies per hour.

An interesting note about the Kable addressing and mailing department is that 12 to 18 Wing hand-mailers are used to affix the labels on publications consisting of less than 16 pages. Seems as if paper bulk is required in handling publications in connection with automatic mailing procedure.

Alongside the mailing department is a separate railroad siding under roof. There is room on this siding which extends into the building for two mail cars. United States postal clerks weigh and record the various mailings which average two carloads every day.

1—Four Pollard-Alling address printing machines stamp the address of the recipient directly on the cover of the magazine.

2—Among the equipment items in the Kable addressing and mailing list department are one Pollard-Alling wrapper printing and three proofing machines.

Co. might be the main industry in the town, Superintendent Harold Ross stated no difficulty except for the abnormal housing shortage which exists everywhere at the present time. Some years ago, Henry Ford advocated the decentralization of industry idea to smaller communities. The movement of manufacturing plants together with necessary employees has many advantages when contrasted with the hurdy-gurdy nature of city life.

Mr. Ross asserted that if a city worker came to Mt. Morris and could not adjust himself to the kind of life that is afforded by Mt. Morris, he is *out*. "Sometimes", said he, "we have printers come to us from Chicago, St. Louis and other cities in neighboring states. After they get here, they go through a sort of winnowing process. If they can adjust themselves to their new environment, they become valuable employees—if not, usually two or three weeks' time is sufficient for them to determine whether or not they wish to remain. If they can't adjust themselves we don't want them to remain.

"We feel that the small-town worker is more stable than the ingrained city worker. If a worker and his family don't like 'high life' the conditions to be found here in Mt. Morris make for an ideal existence. In addition to their work here at our plant, many of our employees own their own homes. A majority engage in gardening, fruit cultivation and chicken raising. Another thought with respect to the contrast between the city and the small-town worker is the short length of time required to get to and from work. Compare the 5 to 15 minutes required to get to and from work in Mt. Morris with the longer time necessary in large cities, which might be as much as from one to three hours."

Production Control

Many plans for closely knit production management and control have been devised. It may be stated here that the methods used in one particular plant cannot be applied 100% to all plants. The reason is obvious—kind of work and nature of executive personnel. We do feel, however, that the principles employed for obtaining executive cooperation in the Kable Brothers Co.'s plant will be found to be basic for any organization irrespective of the variables in plant and personnel. The one primary objective in the Kable plant is that the entire mechanical executive personnel is taken into management's confidence and as a result each executive feels that he is an integral part of the immediate busi-

ness of producing the firm's products. From the viewpoint of this writer, the production system used in the Kable plant and which takes into account the importance, dignity and usefulness of each mechanical department head is effective. It works.

Superintendent Harold Ross explained some of the workings of the production department. A daily meeting of the production department and the departmental foremen is held each morning at 8:45 o'clock. Previous to the meeting, (at 7 o'clock) a complete report of the standing of each publication in the plant is made by the departmental foremen. These figures are collated and analyzed by the production department and assembled in orderly manner previous to the production meeting. Consequently, the executives attending the meeting know exactly the state of progress of each job in the plant and what is expected of them. The production manager, too, through this intimate contact with the departmental supervisors at the meetings, is enabled to keep the schedules straight and in perfect order.

At these meetings, the day's problems with reference to production, labor and machinery are discussed. Every departmental executive receives the same information at first hand and it isn't necessary for him to take the time to ask anyone about important information which otherwise might be withheld from him.

Copies of all publication schedules are given to all mechanical department heads so they will know what is coming their way and they can plan the work in their departments accordingly.

In many plants, the equipment maintenance men have not always been regarded as an integral part of the scheme of things. The maintenance head, consequently, has had to be more or less of a jumping jack in attempting to fit his routine duties into the scheme of things. In the Kable plant the maintenance department head is given a copy of all schedules so he can plan repair and maintenance times for each machine in the plant.

When a new publication is brought into the plant, a "dope sheet" is gotten together. The information for this sheet is collected by the sales department. All specifications are entered on this dope sheet with respect to paper, ink, engravings and typographic details, so the production department can weave the new work into the production line. All plant scheduling is done by the production manager and his assistant.

Editorial Help

In a room devoted exclusively to the purpose, a corps of eight desk editors and their assistants give helpful service to editors of publications who reside in widely separated cities. In fact, through the services afforded by this department, many customer editors never see proofs or dummies after the copy leaves their hands and is sent to Kable. They are content to leave makeup of the magazine to the particular desk editor who has been assigned to handle this work for them

This most important department is under the direction of Carl Borklund who came up to his present position via the route of desk editor which gives him a detailed knowledge of the many problems confronting the editors of the various magazines.

In explaining this part of the company's service to its customers, Milo Zimmerman, secretary and sales manager, stated that each of the desk editors must have been a practical printer. The desk editor positions are filled from among composing room employees.

Each desk editor is assigned a fixed group of publications. It is his duty and that of his assistants, to lay out the magazine, prepare copy for the composing room, check proofs, prepare the art, send orders to the photo-engraving department, make up and paste the dummies and to supervise in general the production of the particular publications which have been assigned to him.

As a further aid to editors, Kable Brothers Co. publishes a 12 page, 8½ in. by 11 in. quarterly entitled *Publication Service Bulletin.* It contains illustrations, poems, humorous items and serious and scientific facts which can be used for filler or feature material. Each item is numbered for convenience of each customer's editor transmitting preferences to his Kable desk editor. Appropriate photo-engravings in good size which are indicative of the month are available. For instance, for the month of May, two halftones are shown—one is a close-up enlarged view of apple blossoms, and the other is a view of a fruit tree in full bloom. Either of these would serve admirably for cover illustration in the May issues of many publications.

In commenting upon this department maintained for its customer editors, Mr. Zimmerman stated: "This department really is the heart and soul of our organization. Its technical service and advice is spread over a group of publications to justify the kind of service it affords."

Publisher Seeks Combination Press

Weekly newspaper publishers, it is stated in the June *PNPA Bulletin*, need a press that is versatile enough to print the newspapers one day each week and can be used in commercial printing during the remainder of the week.

Such is the opinion of many weekly newspaper publishers, and also of several publishers of the smaller city daily newspapers who use their presses only a short while each day. They are seeking a general purpose press that will justify its initial investment and will not involve excessive overhead.

Writing on this subject, R. G. Albright, manager of W. F. Goettler & Son, publishers of the Souderton Independent, a weekly of more than 4,000 circulation, states:

"In the postwar period we would like to install an automatic sheet-fed press for printing our newspaper rather than a duplex press. The reason for this is that a sheet-fed press would be of use in printing commercial jobs whereas the Duplex would be of no use except printing the paper once a week.

"We do not know whether such a press has been or will be on the market but we believe such a press would be of use not only in our office but in many other newspaper offices throughout the country. Could some manufacturer visualize the need and build a press that would serve the country printer throughout the week rather than just one day?"

If any other PNPA member publishers have ideas on this subject, they are invited to write W. N. Hardy, Manager, Pennsylvania Newspaper Publishers Association, Telegraph Bldg., Harrisburg, Pa., to express their views.

The Single Color *Offset Press*

By I. H. SAYRE

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THE PURPOSE of this book is to offer a detailed technical explanation of the operation of the small single color offset printing press. It also carries recommendations for approved methods of printing technique and press care which apply to all offset printing. Much of the technical operating information applies to all makes of small offset presses. Should be in the library of all executives interested in offset printing.

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Fig. 1—This is a 75-line screen zinc halftone made from an AP war picture recently taken in Europe. When reproduced in a newspaper stereotype plate, it would probably reduce to 78-line screen. This is called a "low" negative, *i.e.*, the highlight dots are chained or connected. They are also larger in area than is desirable. This kind of negative produces an all-over grayness with loss of detail.

Fig. 2—This is a 75-line screen zinc halftone made from the same copy as in Fig. 1. It is called a "high" negative, *i.e.*, the highlight dots are separated. In many instances, where it is not possible to manipulate the negative itself, the engraver can improve the appearance of the negative shown in Fig. 1 by re-etching to produce the effect shown in this Fig. 2. Obviously, the Fig. 2 halftone would be much easier to reproduce by stereotyping and for the pressman to print than the halftone shown in Fig. 1.

The Human Element in Newspaper Photo-engraving

By the Technical Committee[1]

THE human element perhaps plays a more important part in photo-engraving than in any of the other processes in a printing plant. To illustrate, we'll tell a little story.

An editor was examining halftones critically in his paper before several departmental executives. Included in the group were two visiting mechanical executives from a paper in another city. After some discussion, one of the visiting executives asked the editor: "Do you ever examine press proofs of illustrations taken direct from the original engravings?" The editor's answer was "No." The proofs were sent for and brought into the meeting. Examination of the proofs indicated the values that were lost from the original copy both in the engraving and stereotyping processes. During the examination one of the visiting executives sketched in some solid areas on one of the proofs with a pencil to provide detail and contrast. The editor remarked: "That's exactly what I want." Passing the pencilled-in proof to the engraver, he asked: "Can you produce engravings like that?" The engraver replied: "If that's what you want, I can give it to you."

It is apparent that if editorial executives would get together with their mechanical men on a common basis in instances of this kind, better mechanical reproduction would be obtained immediately. Perhaps in many instances it isn't necessary to take the human element so much into consideration, but one definitely is led to the necessity for close cooperation between editorial and mechanical executives in photo-engraving reproduction.

We wish to repeat another thought here with respect to newspaper photo-engraving. The engraver at all times ought to keep uppermost in mind that newspaper photo-engraving should be produced with due regard to the peculiarities of the stereotyping process.

The Technical Committee has chosen for this demonstration an AP photograph taken recently in Europe. So far as we are aware, the same quality copy was sent to subscribers for the service. Inspection of a number of newspapers printing this particular photo, however, revealed startling reproduction differences.

This discussion is written without reference to news-photo services, art, composing, stereotype or pressroom departments. We wish only to demonstrate that considerable responsibility for maximum pictorial reproduction rests with the engraver.

The subject was selected by the Technical Committee because it lends itself admirably to the purposes of this discussion. A further consideration, as stated above, is that radically different results were secured by a number of newspapers publishing the same photo. The Committee is also aware of the fact that many photos are of poor quality and little can be done by the engraver to produce a better illustration than the original copy.

The illustration Fig. 1, in photo-engravers' parlance, is called a "low negative," *i.e.*, the highlight dots are nearly connected. This will be apparent if the illustration is examined under a glass. Obviously, since it is to be reproduced by the stereotyping process, the matting and plate-casting operations will result in a further spreading of the highlight dots and a corresponding darkening of the entire tone area of the picture. Notice the overall grayness and absence of definition in the picture Fig. 1.

The illustration Fig. 2, is called a "high negative", *i.e.*, the highlight dots are not connected and they are much finer than Fig. 1. If time is available, it is suggested that in the case of low negatives the engraver may improve the appearance of the final plate if he will re-etch the plate by hand with a brush to bring down the highlight dots, or in other words, re-etching will reduce the size of the highlight dot. This procedure will produce more nearly the effect shown in the same areas in Fig. 2. Re-etching also improves the appearance of the middle-tone and shadow areas.

If you will compare the Figs. 1 and 2 accompanying this discussion, it will be apparent at once that the cut shown in Fig. 2 will permit much easier and better stereotype reproduction and will be easier for the pressman to print from than the halftone shown in Fig. 1.

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[1]Great Lakes Newspaper Mechanical Conference. This is No. 3 of a series of mechanical bulletins being published by the Technical Committee at the direction of the Board of Directors.

Officers of the Great Lakes Mechanical Conference: President, George Fuller, Stereo Supt., The Cleveland *Press*; First Vice President, Lester Yeager, Production Manager, The Indianapolis (Ind.) *Star*; Secretary-Treasurer, Al P. Oberg, Composing Room Supt., The Flint (Mich.) *Journal*; Directors: Levi P. White, Stereo Foreman, Port Huron (Mich.) *Times-Herald*; Oscar Gneuhs, Mailing Foreman, The Cleveland *News*; Horace Parker, Press-Stereo Foreman, Richmond (Ind.) *Palladium-Item*; Roy English, Photo-engraving Supt., The Detroit *News*; Frank Duncan, Mechanical Supt., The Portsmouth (O.) *Times*; Program Chairman, Deo A. Padgett, Composing Room Supt., The Cleveland *Plain Dealer*.

Photographic Retouching for Newspaper Photo-engraving

ORIGINALLY, in preparing the subject matter for this Bulletin, the Technical Committee did not contemplate any discussion with respect to the technique of photographic retouching. The Committee, however, now feels that something constructive should be offered—again because of the human element angle involved.

Not knowing what the newspaper photo-engraver's problems are, it seems many times that the artist works against the engraver rather than with him. For instance, by way of explanation, artists have asked: "Why is it that when I paint in the same tone on two different pieces of copy, the tone does not reproduce the same in both plates?"

The reason for these different tonal values is simple enough. The engraver must appraise the tonal value of the overall copy. If the tone value of a particular piece of copy is dark, the engraver will try to lighten it as much as possible. Of course, this procedure will lighten the tone which has been painted on the copy by the artist. In the reproduction, the tone which the artist painted on the original copy will be very much lighter in value. If the tone which the artist painted in is too white it will be impossible for the engraver to lighten up the darker tones in the copy sufficiently.

Because of the limitations of the process, the engraver can only lighten up (by shooting a higher negative) to the extent that he must get a dot in the highlights or lightest tone of the copy. If he tries to lighten up too much (shoots too high a negative) the light tone will be "plugged up" on the negative, resulting in no highlight dots. This type of negative, of course, will produce a cut which will print dirty in all the highlights.

In other words, if the general tones of the copy are dark, do not put in backgrounds too light in tone, nor paint in spots of white. When the engraver lightens up the dark tones of the copy he must have something upon which to work in the highlights and lighter tones. When the copy tones are all quite light do not paint in too-dark tones, because they will reproduce darker when the engraver strengthens his reproduction in an attempt to retain all of the light tones of the copy.

EMPLOYMENT
AND SERVICE

Employers, production and mechanical executives may insert notices in this department. Items may pertain to the following subjects: "Executive Wanted," "Association or Partnership Wanted," or "Position Wanted," readers referring to subjects of a personal nature such as obtaining information about addresses of executives, supplying copies of technical articles and magazines, patents for sale or requests for contacts for developing and/or financing of inventions. Any reasonable request by an executive on a subject other than those listed will be granted cheerfully.

Notices may be printed under the following regulations: First insertion (maximum six lines) is free of charge. All subsequent insertions of the same item subject to a charge of 75c per line in advance.

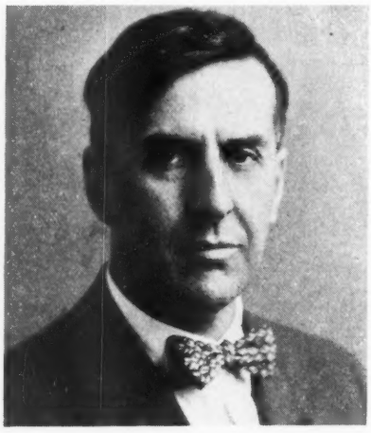
Address all communications with box number to *Printing Equipment Engineer*, 1276 West Third St., Cleveland 13, Ohio.

PRINTING EXECUTIVE-PILOT—Experienced in printing supervision, production and typography and also am a qualified and rated airplane pilot, with experience on both civil and military aircraft. Desire connection with organization where the need for such a combination can be fully utilized in coordinating your transportation and allied printing problems. Reply Box 231.

EXECUTIVE ¶s

A citation from the State of Ohio has been awarded to Ronald Ramsey, Receiving Clerk at The United States Printing & Lithograph Company, Norwood, for "meritorious service" rendered in connection with the Hamilton County Waste Paper Salvage Drive. The citation, signed by Ohio's Governor, Frank J. Lausche, and State Salvage Officials, was presented to Mr. Ramsey at a ceremony held at the Norwood plant of the company. Mayor Frank Ward of Norwood made the presentation. Pictured here are (left to right) R. E. Thiele, Factory Superintendent, Mayor Ward, Mr. Ramsey, and J. M. Callahan, Secretary of the company, at the presentation ceremony. In the most recent waste paper collection drive, Mr. Ramsey, driving a U. S. Printing & Lithograph Company three-quarter ton truck, collected eleven loads of waste paper, totaling more than 18,000 pounds, from his collection territory. Mr. Ramsey is the only truck driver in Hamilton County to receive the State citation.

Walter H. Ogden, pressroom superintendent of the Cleveland *Press*, and pressroom advisor to the Scripps-Howard newspapers, passed away on Monday, July 2 in Cleveland as the result of a heart attack. He was 66 years of age. He leaves his wife, Mrs. Wilhelmina Ogden; a son, George K.; a daughter, Mrs. Helen V. Cain, and his grandchildren. He lived in Lakewood. Funeral services were conducted from Daniels Funeral Home, Thursday, July 5, in Lakewood.



Walter H. Ogden

Mr. Ogden had just completed supervising installation of presses in the pressroom of the Birmingham (Ala.) *Post*, one of the Scripps-Howard newspaper group.

He began his career as a pressman in 1898. Subsequently, he invented a number of devices which improved newspaper press operation. Probably his most important invention was a device for automatic control of tension on newspaper webs being fed from the rolls.

For a long time, Mr. Ogden served Scripps-Howard as pressroom advisor and a considerable portion of his time was spent in pressrooms of member papers straightening out peculiarly difficult operating and production problems. His reputation in this respect has been such that he was universally accepted as one of that little group of top men who knew presses "inside and out" and could straighten out any problem. His services as a planning engineer were well known, he having designed, laid out and supervised many installations in various parts of the country.

Ogden's career started in a German-language newspaper in Cincinnati where he worked 12 hours on Saturday nights for $1 per night. Later on, he went to the Cincinnati *Post* pressroom where he worked for 16 years, after which he worked in the Cincinnati *Enquirer* pressroom for four years, coming to the Cleveland *Press* in 1918. While working in Cincinnati, Mr. Ogden studied the cello and became very proficient, having played in a symphony orchestra. It is related that he might have made music his career, but the smell of printers' ink and the roar of presses fascinated and challenged his mechanical genius.

Mr. Ogden's activities included contribution of technical articles to the trade press. He was a member of the Intl. Printing Pressmen & Assistants' Union. He had also spoken on different occasions before trade groups. For a time he was a member of the ANPA Mechanical Committee and was intensely interested in mechanical research.

In anticipation of its return to the production of machinery for the Graphic Arts Industry, The Christensen Machine Company has appointed Henry Reimers to serve as field engineer in the Eastern territory. The purpose of this appointment is to be of assistance on any problems involving bronzing, paper feeding, varnishing, gathering and stitching or signature feeding. Mr. Reimers will make his headquarters at 330 West 42nd Street, New York, N. Y., in the office of the Dexter Folder Company.

R. J. Cashion, vice president of J. M. Huber, Inc., announces that Hart B. Leitenberger has been promoted to the post of sales manager for the Eastern district. Mr. Leitenberger has been a sales representative of the Huber Company in Pennsylvania for the past twenty years.

Ronald Ramsey, receiving clerk of The United States Printing & Lithograph Co., Norwood, O., receives citation from State of Ohio for meritorious service in recent Hamilton County waste paper drive. Pictured (left to right) are: R. E. Thiele, factory superintendent; Mayor Ward; Mr. Ramsey, and John M. Callahan, secretary of the company. Mr. Callahan also is ex-president of the International Craftsmen's Association.

Spencer W. Pitts, formerly assistant general counsel of the War Production Board since 1941, has joined the Huber Companies, manufacturers of printing ink, carbon black and clay, as assistant to the president. Prior to his post at the WPB Pitts was an assistant solicitor of the Department of Labor and had also been in the legal department of the Wage and Hour Division of the Department of Labor. He formerly practiced law in Cleveland. His activities with Huber will closely parallel those with WPB. He will make his office at Red Bank, N. J.

John S. Plummer, mid-western manager for Intertype Corporation, has announced the addition of Eddie Lansing and Richard H. Meyer to the staff of the Chicago agency. Eddie Lansing started his apprenticeship in the printing trade in Milwaukee, Wis., upon his return

Eddie Lansing represents Intertype in Missouri.

from the World War in 1919, in the plant of the *Herald* as machinist. Later he became chief machinist in the same plant. After having spent some time in 1936 as a service man for Intertype, he was placed on the sales force to cover the

Richard H. Meyer travels in the state of Colorado for Intertype.

state of Minnesota until 1942 when he was transferred to Chicago territory. Recently, he was appointed Missouri territory representative, which he is covering now for Intertype. Richard H. Meyer is now covering Colorado territory. Meyer started learning the trade in a job shop in Rockford, Ill. After finishing school he started learning to be a machinist at the *Register-Gazette*. He then traveled extensively as a machinist-operator.

John Watson, 73, mechanical superintendent of the Sweeney Lithograph Co., Belleville, N. J., passed away in May after a long illness. He was a resident of Passaic, N. J. Mr. Watson came to America from Scotland in 1873 at the age of 14. His parents settled in Huntingdon, Province of Quebec, Canada. In 1893 he settled in New England. He is credited with introducing the first blueprint calling for measurements in thousandths of an inch. Successively, he was associated with Empire Typesetting Corp., New York, and was later placed in charge of the plant of Wynkoop-Hollenbeck-Crawford for 25 years. He resigned 18 years ago to become superintendent of Sweeney Litho in Bellville, N. J.

Russ B. Leech, president of Standard Process Corporation, Chicago, passed away on May 11. He was one of the original founders of the company and had served as its president from the date of incorporation in 1928.

George Marsh, who has been with the St. Paul (Minn.) *Dispatch* and *Pioneer Press* for the past 25 years, has been appointed photo-engraving superintendent of that paper, according to an announcement made by A. E. Rosene, mechanical superintendent. Mr. Marsh succeeds Andy Irber who had 44 years of service with this publishing company. Kenneth McKenzie has been appointed night foreman of the engraving department.

Frank H. Edwards, who has been night foreman of the Galveston (Tex.) *NEWS AND TRIBUNE*, in the composing room, has been made mechanical superintendent. He has been associated with his company for 27 years. He succeeds Joseph Miller who resigned. According to the *SNPA Mechanical Bulletin*, Mr. Edwards married Edith Croft, a daughter of Thos. G. Croft who was at one time general foreman. He is the father of two sons and a daughter.

Anticipates V-E Day by 1½ Years

The Wetter Numbering Machine Co. anticipated V-E Day by 1½ years by preparing and having printed a mailing piece entitled *Nazi's Number Was Up*. The piece was conceived and designed on Oct. 25, 1943 and the printing was done on Nov. 23, 1943. Since that date (approx. a year and a half before it was mailed) the piece was held, addressed and stamped awaiting V-E Day. The piece was sent out on May 8.

The piece is a 8½ in. by 11 in. folded once. The inside shows a two-color sketch of a broom and shovel sweeping swastikas into a bonfire. The company took a long-shot chance on the Nazis being defeated before Japan. The copy includes the statement: "There's still a job to do on the Nips. Their days are numbered, too." Wetter informs users of its machines "Our war work has taught us some new skills. The new Wetter numbering machines show the result."

Worth C. Coutney, general manager of the Toledo (O.) *Blade*, has been appointed chairman of the ANPA Mechanical Committee, succeeding A. H. Burns who served as committee chairman

Worth C. Coutney

for a number of years. Mr. Coutney has been a member of the committee for the past two years. Howard J. Lamade, general manager of Williamsport (Pa.) *Grit*, has been appointed to the committee. He is a former member of the committee.

John P. White, mechanical superintendent of the Charlotte (N.C.) *Observer*, was recently elected a member of the city council, according to *SNPA Mechanical Bulletin* No. 80. Mr. White also has been named chairman of the Veterans' Service Committee of Charlotte. Mr. White has three sons in overseas service. He was active in the organization of the SNPA mechanical conference a number of years ago.

MATERIALS HANDLING

This book by Harry E. Stocker is of vital interest to mechanical and production executives in printing and publishing plants. While not written specifically as a treatise on materials handling in the printing plant, yet a great deal of its text will be of value in the handling of materials in the plant and outgoing shipments from the plant.

Bound in light buckram, 309 pages, many illustrations, size 6 in. by 9¼ in. Price $5.00 per copy, cash with order.

PRINTING EQUIPMENT ENGINEER
1276 West Third St.
Cleveland 13, Ohio

Printing Executives Form Board of Governors of the International Association of Printing House Craftsmen

SERVING the International Association of Printing House Craftsmen in an official capacity is a purely voluntary activity. Not only must such official maintain his regular professional duties by which he earns his living, but he must also perform the voluntary duties to the satisfaction of the membership of the Association. Need it be pointed out that these dual activities together with attendant responsibilities impose somewhat of a strain upon the officer? Nevertheless, there seems to be an ample supply of printing executives from among whom selections may be made.

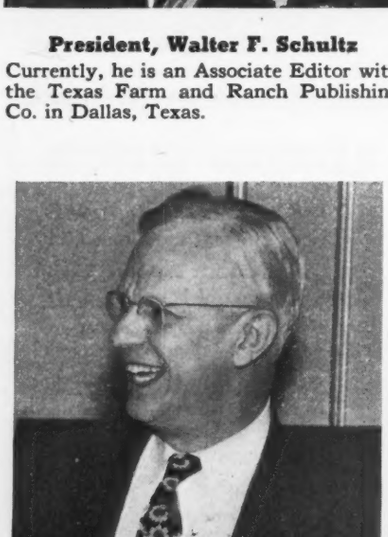
Membership in the International Association of Printing House Craftsmen has grown so that there are approximately 7000 members in nearly 70 clubs. The largest club, in point of membership, as reported by A. Gordon Ruiter, Third International Vice President (May 1945) is Chicago with 626 members. One wonders how much longer the official family duties can be maintained upon a purely voluntary basis, particularly with reference to the offices which require considerable attention to detail. Irrespective of that comment, however, the Association has been thriving lustily during wartime. At the moment, there doesn't seem to be one iota abatement in interest.

The past year's official family is presented here. The individual terms of office expire with the abbreviated business meeting scheduled to meet in Columbus, Ohio, on August 6 and 7. If it is not possible to hold this meeting we are told an election will be held by mail in the near future.

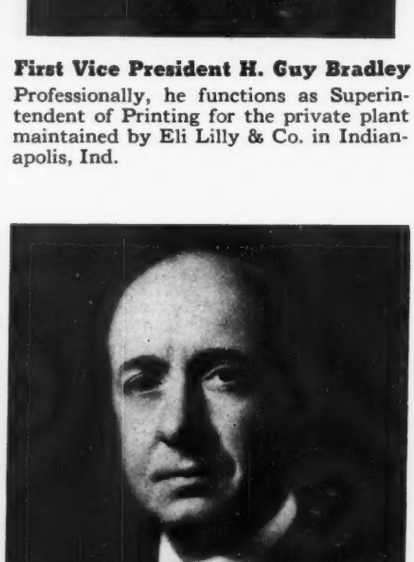
President, Walter F. Schultz
Currently, he is an Associate Editor with the Texas Farm and Ranch Publishing Co. in Dallas, Texas.

First Vice President H. Guy Bradley
Professionally, he functions as Superintendent of Printing for the private plant maintained by Eli Lilly & Co. in Indianapolis, Ind.

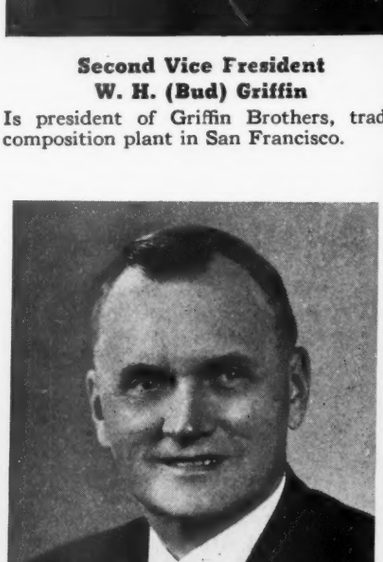
Second Vice President W. H. (Bud) Griffin
Is president of Griffin Brothers, trade composition plant in San Francisco.



Third Vice President A. Gordon Ruiter
Is newest member of International elective family. He is Superintendent of the letterpress department, Forbes Litho Co., Boston.



Secretary Herbert Threlfall
When he isn't doing multitudinous jobs associated with secretaryship, attends to duties as President and Treasurer of the John F. Greene Co., Inc., Providence, R. I.



Treasurer Charles W. Gainer
This year he sings his swan song as keeper of the exchequer for the International. He is composing room foreman of International Harvester's Chicago plant.

Immediate Past President
Harvey Glover

Affable President and General Manager of The Sweeney Lithograph Co., Inc., in Belleville, N. J., he has been valuable member of official family by reason of past experience.

Educational Commission Chairman
E. G. (Mannie) Hubbell

Attended to duties seriously and comprenensively during Association's last fiscal year. Until recently, he has been manager of the Planning and Scheduling Dept., Meredith Publishing Co., Des Moines, Iowa. Since early in July he has been associated with The Neely Printing Co., Chicago.

Publications Commission Chairman
Edward H. Christensen

He is a Production Manager for Central Typesetting & Electrotyping Co., Chicago. As editor of the Association's official publication, *Share Your Knowledge Review*, he has had to cope with the problem of getting copious copy into diminishing paper supply. Has done excellent job.

Research Commission Chairman
Herman A. Slater

Until this spring, he was production manager for Frankenburg Brothers, Inc., in Columbus, Ohio. He transferred job activities to Research Dept., American Type Founders, Elizabeth, N. J., where he is serving as New Product Engineer.

Arrangements for The Craftsmen's International Business Meeting have been completed—Meeting to be held in Columbus, Ohio on August 6 and 7.

THIS is a rather long article about an international meeting limited to a stripped attendance of not to exceed fifty delegates, including the officers of the International Association of Printing House Craftsmen. Our purpose in printing detailed information concerning a 50-delegate "war casualty" meeting at all is that the annual Craftsmen's conventions in normal times are something to behold, inasmuch as the registration is drawn from among approximately 7000 members of the international organization.

Printing Equipment Engineer, as much as it would like to have representation at this meeting, is not sending anyone to Columbus. This is in conformity with the recent action taken by the Board of Governors and sent to all trade magazines that the "welcome mat" has been rolled up at Columbus to those who are not actually qualified delegates. We congratulate President Schultz in passing along this advice so that the regulations stipulated by ODT will be complied with.

The 26th annual meeting of the International Association of Printing House Craftsmen, Inc., will be held in the Deshler-Wallick Hotel, Columbus, Ohio, August 6 and 7. Registration will be limited to one delegate from each Club affiliated with this Association, and residents of the Columbus area. No ladies living outside the Columbus area will be permitted to register, except as official delegates from local Clubs.

In a statement to the trade press, President Schultz warns that travel by railway may become a serious problem for all civilians by August. Colonel Johnson, ODT chief, stated in Los Angeles on June 21, that "rationing of passenger transportation . . . are definite possibilities." President Truman is quoted as saying that he would not hesitate a moment to do this if it seemed necessary. Therefore, it is urged that all delegates make railway reservations 30 days prior to leaving, which is as early as they can be made.

"If railway travel is so restricted at the last minute, states Mr. Schultz, "as to make the business meeting impossible, you will be promptly notified. Proper amendments to our constitution and by-laws will then have to be made to provide for an election of officers by mail ballot. This procedure will likely require a period of three or four months to consummate, during which time the present officers will continue to serve."

Herbert Threlfall, International secretary, will have charge of credentials.

WELCOME MAT TO BE ROLLED UP AT CRAFTSMEN'S BUSINESS MEETING

"THE 'welcome mat' will be rolled up at the International Association of Printing House Craftsmen's business meeting in Columbus, Ohio, August 6 and 7," warns Walter Schultz, International president in a special announcement to the trade press.

"Much as we would like to have a good, old-fashioned convention this year, that is definitely out. We will be able to have only a two-day business meeting with attendance limited to one delegate from each club. No other visitors from outside Columbus will be allowed to register or attend any of the sessions.

"It is our purpose to comply with both the spirit and letter of the ODT restriction regarding conventions. To this end we earnestly ask the cooperation of all our friends who had planned to 'drop in' to see the old gang, or 'happen to be in the city on business.'

"I'm sorry, but that's the way it is—the welcome mat will be rolled up."

ARE YOU USING

Your Current 1945 P-Double-E

REFERENCE ISSUE?

For the convenience of mechanical and production executives, we are printing below a list of advertisers and the products made by them as shown in the 1944 issue.

While indicating the complete number of advertisers, this list only indicates the products advertised by them. For full list of manufacturers and their products consult the complete departmentalized indexes published in the 1945 P-Double-E Reference Issue.

	Cat. Page
Abrams, The, M. L. Co Remanufactured printing equipment	68
Acme Press Blanket Co Printing press blankets	129
American Publishers Supply Stereo perforated gummed packing felt; stereo supplies	126-129
American Roller Co Synthetic rubber rollers for newspaper printing	24
American Type Founders Equipment for letter press and offset plants	25
Anderson, C. F. & Co Folding machines, bundling and banding presses, bindery truck, magazine wrapping machines	129
Atlantic Zinc Works Zinc plate stock for photo-engravers	106
Automatic Saw Sharpening Co Saws and saw sharpening; Dixon Router	121
Beveridge Paper Co., The Stereotype mats	127
Bingham,s, Sam'l, Son, Mfg. Co Printers' and litho-offset rollers	18
Blatchford, E. W. Co Type metals and Blatchford "Honeycomb" base	4
Booth, The E. A., Rubber Co Zink cut cement; rubber rolls for line-composing machine keyboards	51
Brandtjen & Kluge, Inc Automatic die-cutting and open platen presses; automatic platen press feeder	45-47
Breuer Electric Mfg. Co Tornado electric blowers	129
Bump Pump Co., The Pumps for ink and other fluids	113
Burgess Cellulose Co Stereotype mats	69
Cameron Machine Co Constant tension unwind stands	115
Certified Dry Mat Corp Stereotype mats	22
Challenge Machinery Co., The Paper drilling, paper cutting and proof press equipment	111
Champlain Co., Inc Rotogravure 5-color printing press	46
Chandler & Price Co., The Printing presses and paper cutters	26
Chemco Photoproducts Co Photo engraving cameras, equipment and supplies	50
Chicago Printers Machinery Works New and rebuilt printing equipment	129
Cline Electric Mfg. Co Electrical control and drive equipment for all types of presses, high-speed pasters, paper and plate conveyors, typesetting machine drives	36-41
Consolidated Photo Engravers Equipment Co Photo-engraving and offset platemaking equipment	108-109
Cottrell, C. B. & Sons Co Letterpress rotary and rotogravure printing presses; letterpress platemaking equipment	90-91
Cromwell Paper Co., The Tympan paper	125
Dexter Folder Co Feeding, folding, gathering and stitching machines; trimmers and bronzers; punches, perforators, drills	27
Dickerson, Robert W Engineering for the printer and publisher	129
Duplex Printing Press Co., The Newspaper printing presses and plate-making equipment	102-103
Eastern Newspaper Supply Stereo supplies	20
Edes Mfg. Co., The Photo-engraving zinc and copper; gravure sheets	116
Elwell-Parker Electric Co Power industrial trucks, mobile cranes	48
Federated Metals Div., American Smelting & Refining Co Type metals, special alloys, copper anodes, dross recovery, adjusting alloy	59
Flint, Howard, Ink Co Printing and lithographic inks	6
General Electric Co Motors, press controls, electric heating equipment for melting type metal, photo-electric register control equipment, safety equipment for gravure plants	10-66-67
General Plate Makers Supply Photo-engravers' equipment and supplies	125
Goodyear Tire & Rubber Co Press blankets and packing	3
Goss Printing Press Co., The Newspaper, magazine and rotagravure printing presses, stereotype platemaking equipment	42-43
Griffiths, John, Co., Inc Printing presses, plate-making machinery and composing room equipment	127
Hamilton Mfg. Co Wood type, cabinets and tables; page storage cabinet	44-45

Delegates should report their presence to him on arrival.

Chas. W. Gainer, treasurer, will oversee the registering of delegates. Be sure to bring your credentials with you and present them on registering, otherwise your identity will have to be established before you can register.

H. Guy Bradley, first vice president, will assist the Columbus committee on plant visits, and will have charge of other local arrangements as International representative.

W. H. Griffin, second vice president, will be official International greeter.

A. Gordon Ruiter, third vice president, will be the official host.

Each of these International officers will be assisted and work with Columbus Club committees which have been appointed to assure the success of this meeting. They will do everything in their power to make your stay in their city a pleasant one.

While there will be plenty of rooms at the Deshler-Wallick, it will be best for all delegates to make room reservations in advance. This will insure their getting the kind of accommodations they desire. The following rates and wide range of rooms will be available: Single rooms, $3.30 to $8.80; double rooms for two, $5.50 to $13.20; twin-bed rooms for two, $5.50 to $13.20; parlor suites, $8.80 to $26.40.

Delegates will be registered Sunday afternoon, August 5 and Monday morning the 6th. Those arriving early are asked to register Sunday in order to save time Monday morning. The registration fee has been tentatively set at $9.

The first session will be called to order at 10 o'clock Monday morning by Sidney Howe, president of the Columbus Club. After brief opening exercises, the officers' reports will be presented and the usual convention committees appointed. These committees will meet during the luncheon period and, if their work is completed, they will report back to the second session at 3:30 p.m.

Monday night at 7:30 a Club Management dinner meeting will be held under the general leadership of E. G. Hubbell, chairman of the Educational Commission. The International Vice-presidents will act as discussion leaders. Any delegate or Columbus craftsman having a good idea or experience to relate at this meeting is asked to write or see Mr. Hubbell early, so that he may be called upon to take part in the program. This will be a real Share Your Knowledge meeting, and every one will be expected to take part in the program. The more new and constructive ideas the Craftsmen bring, the more beneficial this meeting will be for all.

The official Nominating Committee will meet immediately after the Club Management meeting to nominate officers and next year's convention city.

The third general session will convene at 10 o'clock Tuesday morning to consider committee reports and other unfinished business.

The fourth general session will be held Tuesday afternoon and will be con-

	Cat. Page
Hammond Machinery Builders, Inc. Saw-trimmers, routers and stereo casting equipment	31
Harris-Seybold-Potter Co. Offset, letterpress and gravure presses. Cutters, stitchers, drills and bookbinding equipment	37-38-39-40
Herrick, William C., Ink Co., Inc. News inks, commercial letterpress inks, special inks	111
Hess and Barker. Rotary plate shaver; four-color letterpress printing press	32
Hoe, R. & Co. Newspaper, rotogravure, magazine and offset printing presses and stereo platemaking equipment; press reels, tensions and pasters	64-96-97
Huebner Laboratories. Reproduction equipment and processes for Graphic Arts	104
Ideal Roller & Mfg. Co. Printing press rollers	99
Imperial Type Metal Co. Type metal, metal remelting equipment and photo-engravers' zinc	14-95
International Printing Ink, Div. Interchemical Corp. Inks for every Graphic Arts purpose	101
Intertype Corporation. Line-composing machinery and accessories	Outside Back Cover
Jampol Co., The. Newsprint and plate conveyors, tiering machines, mail room tables and chutes, non-slip pressroom floor	47
Johnson, Chas. Eneu & Co. Printing inks for every purpose	125
Justrite Mfg. Co. Justrite safety cans	129
Kelly, E. J., Co. Letterpress printing ink and bulletin: "Ten Ways To Avoid Offset"	114
Kimble Electric Div., Miehle Printing Press & Mfg. Co. Custom-built motors for printing machinery	115
Lake Erie Engineering Corp. Direct pressure platemaking presses for molding stereo, plastic and rubber plates	105
Lanston Monotype Machine Co. Typesetting and type casting equipment; letterpress and lithographic offset platemaking equipment	7
Levey, Fred'k H., Co., Inc. Letterpress, lithographic and gravure inks	19
Linotype Parts Co. Parts for Linotypes and Intertypes. Electric motors	58
Ludlow Typograph Co. Composing machines and equipment	2
Matrix Contrast Corp. Matrix contrast system for line-composing matrices	70
Meisel Press Mfg. Co. Typographic, offset and gravure presses; rubber plate presses	30
Mergenthaler Linotype Co. Line-composing machinery and accessories	93
Metals Refining Co., Division of Glidden Co. Type metal	112
Miehle Printing Press & Mfg. Co. Letterpress and offset printing presses	56-57
Miller Printing Machinery Co. Letterpress printing presses	5
Milwaukee Saw Trimmer Corp. Saw-trimmers, router and type high machines, jig saws and waste receptacles	12-13
Minnesota Mining & Mfg. Co. Spherekote tympan cover	115
Mohr Lino-Saw Co. Slug trimming saw for line-composing machines	110
Monomelt Co. Metal melting system for composing machines	119
Montgomery and Co. Parts and accessories for line-composing machines	129
Morley Co., The. Stereotype mats	113
Morrill, Geo. H. Co., Div. General Printing Ink Corp. News, job and specialty printing inks	15
Mount Vernon Presses. Cylinder printing press	126
Nelson, C. B., & Co. Saw-trimmers, printing and bookbinding machinery	123
New England Newspaper Supply Co. Newspaper stereotype and pressroom supplies	49
Nolan Corp. Saws, proof presses and stereo platemaking equipment	Inside Front Cover
Norma-Hoffman Bearings Corp. Ball and roller bearings	23
Nygren-Dahly Co. Paper drills, punches, perforators, stitchers	120
Ohio Knife Co. Paper trimmer knives	128
Paisley Products, Inc. Pliatab cold padding glue	124
Pitman, Harold M., Co. Photo-engraving and offset platemaking equipment and supplies	122-123
Plastic Binding Corp. Plastic binding	34
Printing Machinery Co., The. Sterling toggle hook and semi-steel base system	61
Rapid Roller Co. Printers' rollers and offset press blankets	63
Richards, J. A., Co. Saws, routers, dies	62
Riehl Galley Lock Co., Inc. RiehLock no-string-tie-up-system	128
Robertson, R. R. Equipment for photo-engraving, lithography, rotogravure and commercial photography	119
Rouse, H. B. & Co. Band saws, mitering machines, slug cutters, composing sticks and other accessories	35
Rutherford Mach. Co., Div. General Printing Ink Corp. Offset platemaking and printing machinery; special machines	52
Scott, Walter & Co., Inc. Newspaper printing presses	53
Simonds Worden White Co., The. Paper trimming knives	60
Sinclair and Valentine Co. Printing inks for every purpose	122
SKF Industries, Inc. Ball and roller bearings	16
Southworth Machine Co. Paper conditioning machines, joggers, hangers, humidifiers, punching and perforating machinery; special machines built to order	129
Sta-Hi Corp. Stereo master formers	1
Standard Process Corp. Thermo-plastic("hot melt") paper coating machine	127
Stereotex Machinery Co. Hydraulic matrix press	117
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cluded with the formal election of officers and the selection of the convention city for 1946.

Tuesday night a banquet will be given, at which time awards will be made to the winners in the international bulletin contest, and the new international officers will be inaugurated. The evening will close with entertainment and dancing.

Arrangements have been made for plant visits as time permits between sessions and possibly after the meeting closes. Craftsmen should take this opportunity to visit the Battelle Memorial Institute especially and acquaint themselves with the Graphic Arts industries research being conducted there.

52nd Annual Monotype Report

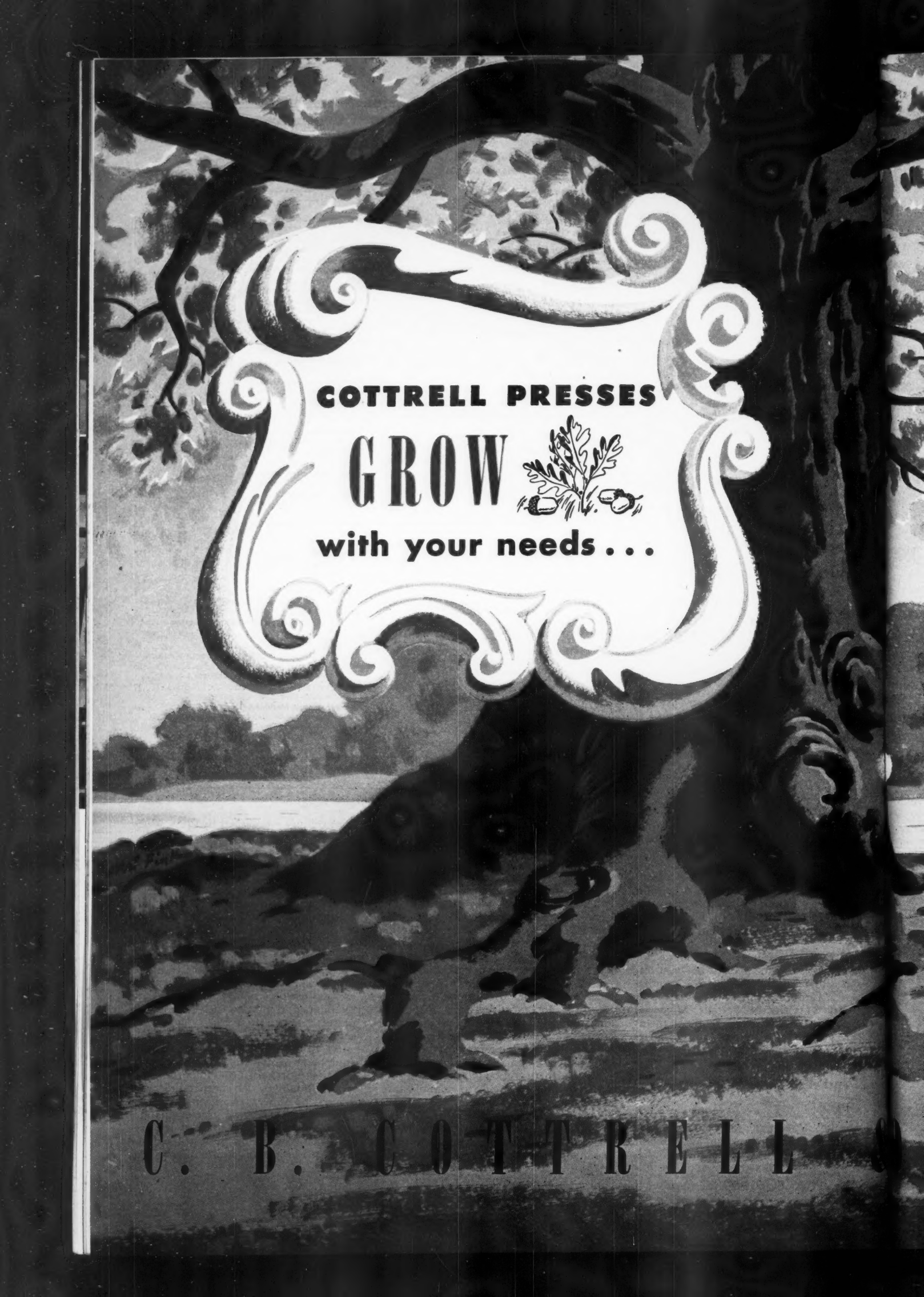
The 52nd annual report of the Lanston Monotype Machine Company for the fiscal year ended February 28, 1945, has been published. Joseph F. Costello, president of the company, reports that net earnings for the fiscal year amounted to $290,140.12 ($5.74 per share), after provision of $566,700 for federal and state income taxes and undetermined renegotiation refund; also additional reserve for contingencies of $100,000. Dividends for the year totaled $177,465.60.

The total reserve for contingencies is $388,276.86. "The purpose of these reserves," reports President Costello, "is to cover costs of reconversion to commercial manufacture through the period required for acquiring raw materials, machining parts and assembling machines for delivery to customers.

It is noted in the report that since the company has no commercial machines in stock, there will be an interval of several months devoted to manufacture before any substantial deliveries of machines can be made.

Comment is made by President Costello that all commercial products of the company must be marketed at not above price ceilings established by OPA. Since that date wages of Monotype's union shop and office workers have been increased 22.19% and prices of raw materials have been increased in many cases, and until such time as government price control is cancelled, the company is required to absorb all additional costs out of earnings arising from the sale of its goods at pre-war prices. It is also explained by the president the conditions existing in Philadelphia with respect to the critical labor area. Requirements of existing customers have been met with reasonable promptness, however, for replacement parts, matrices and other supplies.

As is the case with other printing equipment manufacturing companies, in addition to its earlier and important war work, Monotype has been doing substantial amounts of work on newly designed secret air-borne instruments and range finders. When the secrecy requirements are lifted, the industry will be furnished with more detailed information.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C. B. COTTRELL

COTTRELL ENGINEERS are always looking to the future, as well as keeping in step with present day needs. As a result, Cottrell Presses grow in usefulness, because they have been designed to keep pace with developments.

Cottrell—rich with achievements of the past—forecasts a future era of invention and development, which will result in greater progress of printing and publishing.

The complete line of Cottrell Presses includes:

Two-Color, Sheet-fed, Rotary Press and Five-Color, Sheet-fed, Rotary Press for printing direct-mail pieces, booklets, broadsides, labels, and for two-color and four-color publication printing, magazine covers, inserts and general color work, at speeds up to 5500 sheets an hour, in up to five colors.

Double, Five-Color, Web Press for the finest quality magazine color printing of advertising and editorial sections. It prints, folds and delivers up to speed of 1200 feet per minute.

Double-Deck, Double Two-Color Web Press for mail order catalogs and general magazine printing; it prints 64 pages in two colors, or 32 pages in four colors, up to speed of 1200 feet per minute folded in all the necessary combinations for large edition production.

Rotogravure Web Press for magazine printing, mail order and catalog work. It produces two or more colors first side, four colors second side, at speeds up to 1200 to 1600 feet per minute. Monotone or multicolor units can be furnished with folder, cut-off and flat delivery or rewind.

Also Rotogravure Presses for package printing, including printing on cellophane or foil.

Other equipment—Cottrell also manufactures a Roughing and Shaving Machine; Non-Stretch, Plate Curving Machine; Curved Plate Finishing Machine; Four-Color Proof Presses and Single-Color Proof Presses.

7700

N S C O

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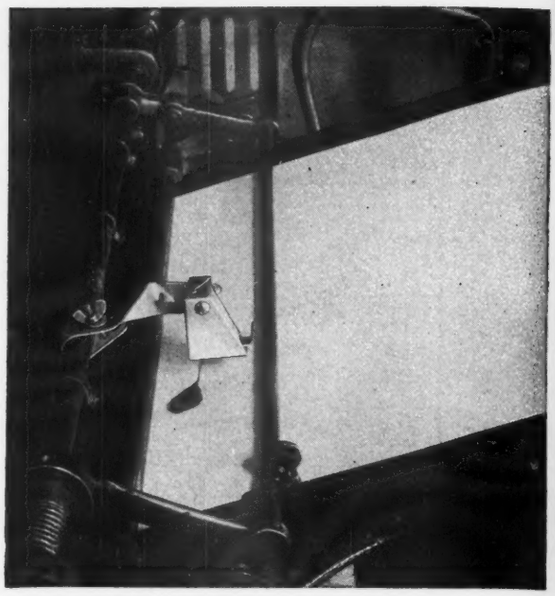
Tensomatic Sheet Positioning Device

DEVISED by a practical pressman and manufactured by The Harving Company, the Tensomatic sheet positioning device is claimed to control the sheet positively on Miehle Vertical Presses so that the sheet will be held against the gauges if it has been fed properly. Tensomatic will also straighten the sheet to the gauges if there is the slightest angle and eliminates bouncing of the sheet away from the side guide.

In operation, the bracket of Tensomatic is attached by a wing-screw clamp to the side guide bar shaft. A box is attached to the other end of the bracket. Projecting downwardly from the box and actuated by gentle spring pressure, is a small rubber foot. As the side guide bar closes in on the sheet the rubber foot engages the paper sheet and gently but positively urges the sheet against the gauges. The motion of the rubber foot is such that it holds the sheet down and also urges it under gentle pressure against the gauges.

Manufacturer states pin point registration is secured when using Tensomatic and sheets less than 3½ in. up to large size index stocks can be fed with perfect registration. No adjustment is necessary from one size sheet to another. Position of the Tensomatic does not interfere with makeready nor with opening of the cylinder.

Further information may be secured from The Harving Company direct, or in care of *Printing Equipment Engineer.*



View of section of Miehle Vertical Press showing rubber foot of Tensomatic auxilliary sheet positioning device urging sheet against guides under gentle spring pressure.

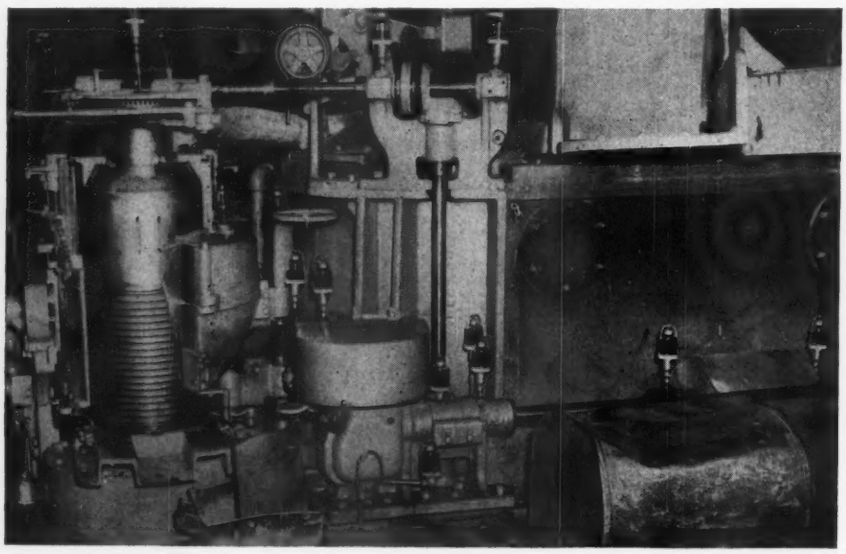


Fig. 1—These 2 oz. capacity oil cups release oil only during operation of the Junior Autoplates in plant of the Rochester (N.Y.) *Times-Union* and *Democrat & Chronicle.* The cups operate through vibration.

Gadgets improve operation of Junior Autoplates in stereotype department of Rochester *Times-Union* and *Democrat & Chronicle*

ADAM SCHREIBER, superintendent of the Stereotype department of the Rochester, N. Y. Gannett newspapers, recently secured a number of Vis-O-Matic Constant Oil Level Control Cups for replacement of all oil cups on the Junior Autoplates, with the exception of the cup on the upper saw shaft bearing. It was found that the new cup did not work quite as satisfactorily in this position as in the other positions on the Juniors.

Mr. Schreiber reports that the Vis-O-Matic cups eliminate any tendency of bearings to leak due to excess hand-oiling. He states his department is now using about 10% as much oil as before installation of the cups. With these cups the oil feeds to the bearings through vibration, and as a result no oil leaves the cups when the Autoplate is idle.

In the accompanying Fig. I are shown the locations where the oil cups have been applied.

Another device which Mr. Schreiber employed to control the flow of water to the Autoplate casting boxes and to eliminate manual operation of the water valve during plate-casting operations, consists of the installation of a 1½ in. Powell petrol valve with operating rods, shown in Fig. 2.

Some time ago, the Junior Autoplates were reconditioned in the plant of the *Times-Union* and *Democrat & Chronicle.* At that time the water-cooling trouble was discussed with a representative of the Wood Newspaper Machinery Corporation who supervised the recondition-

Adam Schreiber, Stereo Superintendent, Rochester (N.Y.) Gannett Newspapers.

SEMPER FIDELIS

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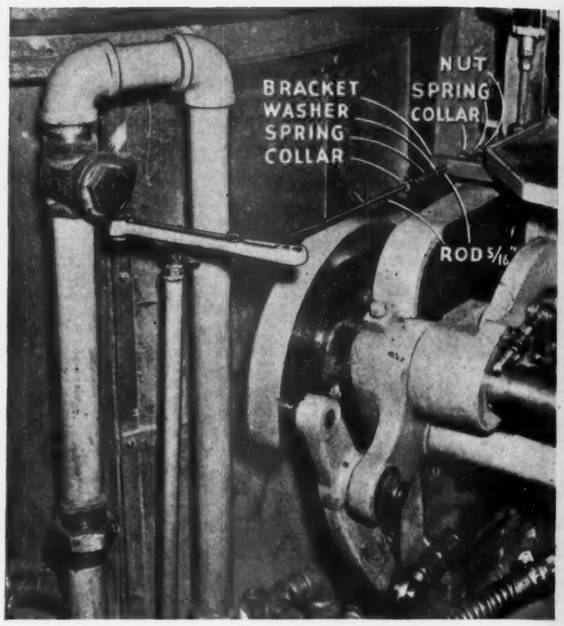
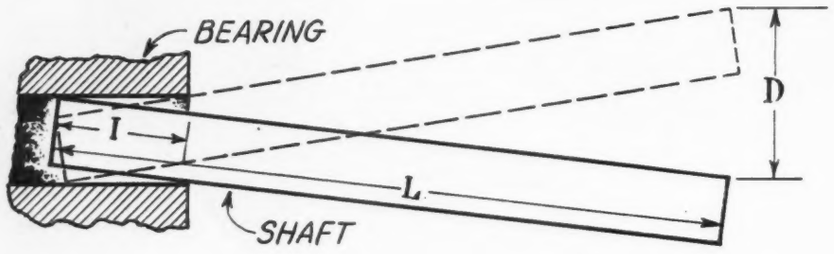
ing of the machines. Between Mr. Schreiber and the Wood representative, an automatic means for opening and closing the water valve was worked out. In fact, Mr. Schreiber had had it in mind for some time. This device assures a more even temperature of both the casting box and the water, the water being kept warm enough during a run to secure plates which solidify more evenly.

The exact temperature of the water entering the casting box is not controlled, but the amount of flow is controlled to maintain a warmer temperature. Also, as is stated above, operation of the valve is automatic. The valve opens and closes with the opening and closing of the casting box. Thus, when the box is open the water valve is closed and *vice versa*.

Briefly, the 1½ in. Powell valve is attached in the water line in place of the hand-operated valve. A 5/16 in. round steel rod is attached pivotally to the handle of the water valve. The other end of the rod passes through a hole drilled in the bracket attached to the side of the upper shelf opposite the operator's side of the machine. On each side of the bracket, a screw-set round steel collar, a spring of suitable length and a steel washer next to the bracket are attached to the rod. The collars on either side of the bracket are adjustable for proper tension of the spring and to permit adjustment at any time. A lock nut is attached to the end of the rod just as a safety measure.



Water-cooling valves on Junior Autoplates in plant of Rochester (N.Y.) Gannett Newspapers are opened and closed automatically with opening and closing of casting box.



How To Measure Bearing Clearance Without a Micrometer

By W. F. SCHAPHORST, M.E.

EVERY user of shafting knows that a loose shaft will "wiggle". The looser the shaft the greater the wiggle. In other words, the looser the shaft the greater the so-called "clearance."

However, I dare say that very few users of shafts know that this wiggle characteristic may be utilized for determining the amount of clearance between the shaft and its bearing. And what is more it eliminates the necessity of a micrometer or fine hair-breadth measurements.

The sketch herewith shows how it is accomplished and the sketch also shows clearly "why" it is possible to measure clearance in this way.

Take the shaft out of the bearing and measure its length L in inches. Then shove it part way back into the bearing, distance I, which we will call the "distance of insertion."

Now move the end of the shaft from extreme to extreme, the distance *D*, as shown in the sketch printed above.

It is obvious that the distance *D* is directly proportional to the clearance. The greater the clearance the greater the distance *D*. If there is no clearance whatever the end of the shaft cannot be moved. To be sure if it is a long shaft it can be deflected owing to the elasticity of the shaft. This matter of deflection must of course be taken into consideration if the shaft is long. If the shaft is short and large in diameter deflection can be neglected.

After making all of the measurements suggested above and shown in the sketch, multiply the movement distance *D* in inches by the insertion distance I in inches and call the product "*A*". Then multiply the length of the shaft in inches by 2, and from the product subtract the insertion distance in inches, calling the difference "*B*". Now divide "*A*" by "*B*". The result will be the clearance in inches.

For example, if $D = \frac{1}{4}''$; $I = 1''$; and $L = 10''$; application of the above rule tells us that the clearance between the shaft and bearing is 0.01316.

Admittedly, this sketch has been exaggerated purposely to show the principle behind the method of determining clearance.

It is obvious that this method is useful also for determining whether or not a bearing is out of round and if so, how much. This is accomplished by measuring the distance *D* in several directions.

Certified Elects Officers

The board of directors of Certified Dry Mat Corporation, New York, N. Y., following its last meeting, announced several promotions for the officers of the corporation. Mrs. George A. Kubler, who was unanimously elected president, formerly held the position of vice president. The new president has taken an active part in the corporation affairs since the death of her husband, George A. Kubler, founder of the Certified Dry Mat Corporation. Paul Runge, treasurer of Certified since its inception, will succeed Mrs. Kubler as vice president, and at the same time retain his position as treasurer. George T. Kempter will have the duties of assistant vice president added to his duties as secretary. Joseph D. Jerome, auditor of Certified for many years, has now been made assistant treasurer. Frank M. Tighe who was elected vice president in charge of sales last year, retains the same position in the new officer arrangement. Alexander R. Bradie continues as manager of the Silvertone and Commercial Mat Departments.

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Determining Machinery Profit

By W. F. SCHAPHORST, M. E.

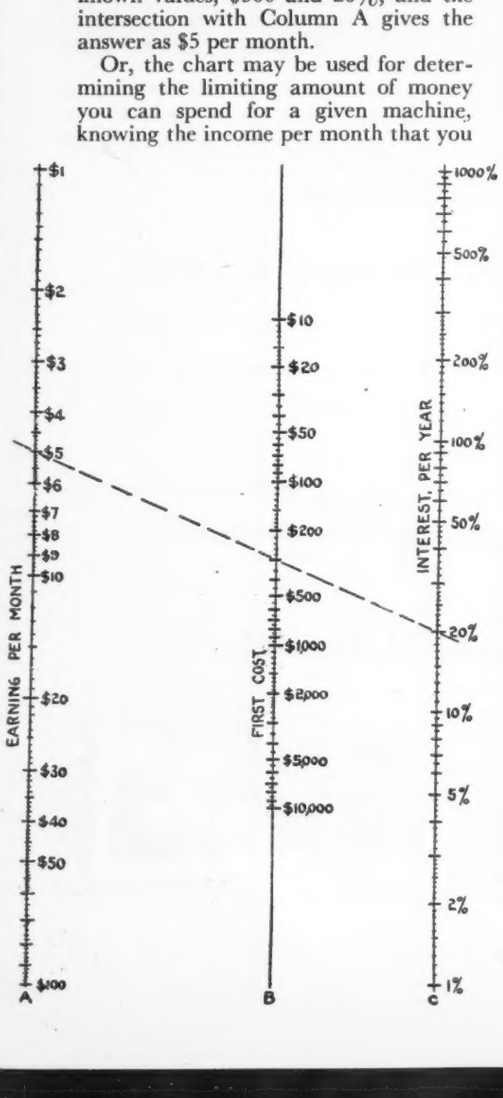
MANY printing executives commonly underestimate the money earning value of machinery. Thus, for example, if you spend $300 for a certain machine, and if it earns "only" $5 per month for you, that amount probably does not look like much to you. Yet, it is 20 per cent interest per year on the first cost of the machine. 20 per cent is a high rate, usually.

The accompanying chart quickly tells you what your machinery profits are. To use the chart, run a straight line through the Earning per Month, Column A, and the First Cost, Column B, and the intersection with Column C immediately gives the Interest per Year.

Thus, choosing the example stated above, if the earning per month is $5 and the first cost of the machine is $300, the dotted line drawn through the $5 in Column A, and the $300 in column B, intersects the 20% mark in Column C. Therefore, the annual interest earned by the $300 machine is 20 per cent.

The chart will also be found useful for determining the amount of returns per month that should be expected from a given machine of known cost. For example, if you know that a machine will cost $300 and you want to make at least 20%, run a straight line through the two known values, $300 and 20%, and the intersection with Column A gives the answer as $5 per month.

Or, the chart may be used for determining the limiting amount of money you can spend for a given machine, knowing the income per month that you can get out of it and knowing the interest rate per year that you want.



In other words, if you know the values in any two columns you can immediately determine the third by running a straight line through the two known points.

The range of the chart, as will be noted, is great enough to take care of most problems—the earnings per month ranging all the way from $1 to $100. The first costs, column B, range all the way from $10 to $10,000. And the interest rates vary all the way from 1% to 1000% column C.

The chart is also usable for figures larger than those shown on the chart. For example, if the earning per month is $500, and the first cost $30,000, the same dotted line would be drawn across giving the result as 20% interest per year. In other words, when you add two ciphers to any figure in column A, you must also add two ciphers to any figure in column B. If you add 3 ciphers in A, also add three ciphers in B. In other words, always add as many ciphers in B as are added in A.

Experiment with the chart for a while, trying some of your own actual problems, and you will soon find how useful it is.

Four Million Plant-Equipment Program

A $4,000,000 program of plant expansion and installation of new equipment for the W. F. Hall Printing Company was announced June 18 by Alfred B. Geiger, president. at the annual meeting of the company's stockholders.

Three directors of the company—Frederick Secord, J. Arthur Friedlund, and Arnold A. Schwartz—were reelected for a term of three years at the meeting. All officers were reelected at a meeting of the board of directors which followed the stockholders' meeting.

The Hall company, and its affiliates, the Chicago Rotoprint Company, the Central Typesetting and Electrotyping Company, both of Chicago, and the Art Color Printing Company of Dunellen, New Jersey, are one of the largest volume printing organizations in the country. The Chicago plants are located at 4600 Diversey avenue and 4601 Belmont avenue.

The company recently completed the scrapping of more than 300 tons of obsolete presses, binders, and other equipment preparatory to the installation of some of the latest type replacements.

"We have had long standing orders for certain types of equipment which manufacturers now assure us will become available shortle," President Geiger said. "In addition, we are now in the process of placing orders for a large number of new installations which will permit us to carry on the heavy volume of work which we anticipate will follow the release of consumer goods as well as the relaxing of paper restrictions.

"Our research departments, in cooperation with engineers of suppliers, have been working for some time on the development of new types of equipment as well as the improvement of present machinery. We hope to begin the installation of new equipment in the near future.

"Because of our successful operations the last few years and the accompanying inability to purchase new presses, binders, and other machinery, we have built up a reserve in anticipation of the day when such equipment would become available. As soon as suppliers are permitted to resume manufacturing we shall proceed with our program of rehabilitation and expansion."

The W. F. Hall Printing Company and its subsidiaries, the Chicago Rotoprint Company, and the Central Typesetting and Electrotyping Company, occupy a site a half mile long between Diversey and Belmont avenues adjacent to the Chicago & North Western Railroad's tracks on the northwest side. The company is one of the largest printers of a wide variety of products including catalogues, magazines, rotogravure publications, paper bound books, and during the war has turned out volume printing for a number of governmental agencies under the direction of the Government Printing Office. The Hall company and its subsidiaries employ approximately 5000 persons.

Duplex Brochure

The Duplex Printing Press Company has published a 16 page plus cover brochure, 11⅛ in. by 8½ in., in which is illustrated and described the newspaper press and plate-making equipment manufactured by it. The booklet is attractively printed in black and two colors. Illustrated are the super-duty interchangeable unit semi-cylindrical plate press, super-duty interchangeable unit, unitubular press (twinned unit), unitubular press, new standard tubular plate press, high-speed flat-bed unit combination, flat-bed web press unit combination, Model E high-speed flat-bed web-perfecting press, and the Model A web-perfecting press. Also illustrated and described are heavy-duty matrix roller, tubular finishing machine and vacuum casting box.

Two-Color Process Folder

Two-Color Process is the title of the seventeenth folder in the Color Facts series issued by the Eagle Printing Ink Co. This folder shows 12 combinations employing the principle of using a warm hue with a cool one. This demonstrates that when the two-color process is properly applied it permits a fairly convincing simulation of full color. If you are interested in seeing the possibilities of two-color process write for a copy of this folder direct to Eagle, or *Printing Equipment Engineer*. They will be glad to see that it is sent gratis.

Loren Donelson, former head of the Journalism Department, South Dakota State College, has joined the editorial staff of *Farm Journal*. Mr. Donelson is a graduate in Agricultural Journalism, Iowa State College, and was on the staff of Iowa newspapers, including the Des Moines *Register*. He also was with United Press.

Patents

For The Graphic Arts Field

The patents reported here are those issued on May 15, 22 and 29; June 5 and 12.

This data is compiled exclusively for Printing Equipment Engineer by Invention, Inc., is verified in the United States Patent Office, and is comprehensive of all patents in the field of each heading for the dates specified.

For copies of patents listed here, specify the patent numbers and send 10c for each separate patent (stamps not accepted) to the Commissioner of Patents, Washington, D. C.

Binding, Cutting, Perforating:

2,377,340 SHEET BINDER which forms multiple loop binder elements from flat wire, drills a pad of sheets to be bound, and then inserts the binders through the drilled holes in the sheets. Guard tapes prevent the point of the drill from multilating the outside sheet. A reciprocal driving means forces the straight entering portion of fastener into the perforation and a guide curls successive portions of the advance end of the binder's straight portion, in order to form a loop extending through the perforation and around the edge of the pad of sheets. Perforations are large enough to permit the free entry and passage of the curled moving end of the fastener and, therefore, the wire may be coated before the fasteners are formed if colored binding is desired, since the forming operation does not injure the coating. Invented by George G. Grinnell, Portland, Oregon. Unassigned. Application January 3, 1941. 14 claims.

Composing Room Equipment:

2,376,811. TYPE SIZE AND SPACE GAUGE in the form of a transparent plastic strip for accurate and rapid measurements of type sizes and line spaces. On this transparent strip there are space measuring bars for various point sizes, each bar having at one end a symbol in the form of a composite of an ascending and a descending lower-case letter such as a superimposed b and p, the top of the b and the bottom of the p defining the top and bottom, respectively, of each bar. Point size numeral indications are at opposite ends of bars and, by means of the indicating bar edges extending laterally from the tops and bottoms respectively of the letters, type sizes may quickly be compared. Invented by Irving F. T. Rigby, Stamford, Connecticut. Unassigned. Application May 27, 1943. 1 claim.

2,376,999. GALLEY LOCK, which can be made of metal, plastic, or wood, and quickly and easily adjusts in the galley to hold the set type in proper position. An extension spring has its ends anchored in the cross partitions of two telescopic sliding members, and spring exerts a tension to separate these members. A screw slidably mounted in a central longitudinal slot, provided on one member, fits, in the internally threaded finger-engaging post carried by the other member, thus locking the parts together. Invented by Stephen A. Gattoni, Weehawken, N. J. Unassigned. Application April 2, 1942. 1 claim.

2,377,075. ACCESSORY FOR A LINOTYPE MACHINE which discharges a current of cooling air through the slug-forming chamber of a mold on a mold wheel. A shaft carrying a slug cutter is supported for rotation. An air impeller is driven by shaft and an air conduit receives air from impeller and discharges it through the chamber. Secured to shaft is a fly wheel which gives uniformity to the operation of slug cutter. Fly wheel has openings obliquely flaced with respect to a plane at right angles to axis of rotation of fly wheel. Invented by Dexter B. Ellis, Ogden, Utah. Unassigned. Application December 2, 1943. 7 claims.

Feeding, Folding and Delivery:

2,375,989. SHEET FEEDING MECHANISM for feeding sheets by multiple sheet carriage means from a pile to the cylinder of a printing press, particularly a flat bed cylinder press. A reciprocating sheet feeding mechanism with only two feed carriages provides a four-step feeding mechanism rather than the two-step method previously used. Each carriage has two sets of suction feet, one set on each carriage extending forward toward the press and one set extending backward toward the pile. By means of this assembly the sheets are fed a short distance by each of the four sets of suction feet and thus move from pile to guides only half as fast as in the known two-step sheet feeding devices, and with greater accuracy. Invented by Jackson Tipton Hale, Atlanta, Georgia. One-fifth interest assigned to Augustine Sams, Atlanta, Georgia. Application August 16, 1943. 10 claims.

2,376,255. FEEDING AND REGISTERING MECHANISM combined with a printing press, which can take the sheets to a cylinder without stopping them and can register them as they are moving toward the cylinder. An ordinary suction feeder may take the sheet from a supply pile and feed it into rollers running at cylinder surface speed, from which sheet is forwarded over a smooth table toward the impression cylinder. As sheets will not advance in exact register, they are timed to come a little too late to reach cylinder in register, and then in the last part of their straight travel, they are pushed forward faster until they reach register stops attached to a reciprocating carriage running at cylinder surface speed. This carriage also has a side register stop, past which the sheet is fed and then pushed over sidewise against the stop before being taken by the cylinder. Invented by Irving A. Hunting, South Plainfield, N. J. Assigned to Miehle Printing Press and Manufacturing Company, Chicago, Ill. Original application September 16, 1939. Divided and this application January 8, 1941. 17 claims.

2,376,470. SUCCESSIVE FEED TABLE ARRANGEMENT for a ream trimmer. Supply and removal of paper to and from a ream trimmer is facilitated by infeed and outfeed tables that may be rolled into position to form continuations of the trimmer bed surface. During trimming operation tables may be moved accurately away from trimmer bed to clear space for the trimmer man to work, and to receive a fresh supply of paper, or to remove paper just cut. Tables are identical. Three adjacent corners of each table are provided with legs having casters. The fourth corner of one table is pivoted to the lefthand forward corner of trimmer bed. Fourth corner of other table is pivoted to righthand forward corner of the trimmer bed. Invented by Casper E. Youngchild, Glens Falls, N. Y. Assigned to International Paper Company, New York, N. Y. Application February 26, 1944. 6 claims.

2,376,879. REWINDING MACHINE provides means for locating and marking the defects noted in paper. As paper passes under a measuring scale which indicates distances from each edge of paper to the center of the scale, inspector notes the indicated distance on a flag and places flag in between the two layers of paper on rewind roll so that it projects a sufficient distance to be noted when paper is later handled. Machine may or may not have knives for slitting the paper in two or more parts and for cutting off a narrow strip along the edges of the rewound paper to obtain a smooth edge. By using a clamp around the rewind mandrel in close abutting position with the bobbin of rewound strip, the narrow cut strip will not fall away from the main rewind roll. Paper is prevented from slipping on the supply roll by using core clamps around the mandrel of the supply roll adjacent to the roll. Knurled surfaces on the supply roll mandrel also aid in preventing slipping. Invented by

(*Continued on Next Page*)

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Robinson E. Matthews and Floyd F. Hensley, Brevard, N. C. Assigned to Ecusta Paper Corporation, New York, N. Y. Application February 17, 1942. 5 claims.

2,377,447. SHEET FEEDER for printing presses of the rotary lithographic type in which sheets are fed in lapped relation. A registering table with a normal plane of operation and a receded position is associated with the sheet register. When table is in normal plane of operation, the top sheet on table is registered by the sheet register and when table is receded, the register engages the leading edge of the underneath sheet. A rotary sheet transfer mechanism removes registered sheets from table and, during removal of the registered sheet from table, the table is receded from its normal plane of operation for the purpose of clearing the sheet with respect to the rotary transfer mechanism while it is being withdrawn. The mechanism for receding table includes adjustable elements so that the extent of recession can be varied. Invented by Henri E. Peyrebrune, River Forest, and Bruno B. Pasquinelli, Chicago, Ill. Assigned to The Miehle Printing Press and Manufacturing Company, Chicago, Ill. Application September 18, 1941. 6 claims.

2,377,971. SPLICING TAB for use in releasably securing the leading end of a roll web to the roll surface, splicing such end to a running web, and releasing it from the roll surface after roll is accelerated. The web end engaging part has a layer of strong adhesive on its under surface for securing it to the leading end of a web on a new roll. A roll surface engaging part also has a layer of strong adhesive on its under surface for securing it to the roll adjacent the web end. An extension on web end part overlies outer surface and roll surface part and a weak adhesive separably connects the overlying extension to roll surface engaging part. Splicing adhesive is on outer surface of web end engaging part. Invented by Oscar C. Roesen, Scarsdale, N. Y. Assigned to Wood Newspaper Machinery Corporation, Plainfield, N. J. Application December 15, 1943. 5 claims.

2,378,234. AUTOMATIC WEB REGISTER which is controlled by the lateral shifting of the web as it passes from the first to the second printing unit. The web register includes two diagonal turning bars, their coacting web reversing roller, a scanning roller, and a photoelectric unit. The photoelectric unit has two scanning heads coacting with that scanning roller. A motor, set in motion by the photoelectric unit, is connected to both ends of one of the turning bars and to their coacting roller for simultaneously adjusting them and automatically correcting both lateral and longitudinal register, simultaneously. Invented by Joseph E. Meyer, Westerly, R. I. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application April 2, 1943. 22 claims.

Miscellaneous:

2,376,368. APPARATUS FOR DRYING or heating printed or engraved stationery (of the "Thermograph" or "Virkotype machine" type) which eliminates brittleness of paper, cockle, change of color, etc., as moisture is not removed from the paper during passage through the oven. A pan of water is placed directly beneath the conveyor belt in such position that heat of the oven causes evaporation and prevents drying. The pan is open at the top and oven has inlets for fresh air and outlets for vitiated air. Invented by Charles Lingle, Los Angeles, Calif. Unassigned. Application December 15, 1941. 9 claims.

2,376,882. ELECTRON DISCHARGE DEVICE of the beam type provides a novel arrangement for deflecting the beam relative to an anode in the device, thereby changing the electron flow in the anode-cathode circuit. Deflection in beam is controlled in accordance with the position of an electrode located outside of the device. Although the apparatus has various applications, it is especially adapted for changing the direction of rotation of a motor in accordance with a change in condition such as that shown by a sensitive instrument pointer. Use in connection with registration for a high speed printing press is a possibility that is not specifically mentioned in the patent specification. Invented by Hyman Olken, Washington, D. C. Unassigned. Application May 19, 1943. 8 claims.

Plate Making:

2,376,132. COLORED NEGATIVE MASKS, for use in photography for printing color corrected pictures, which have no tendency to produce graininess and insure accurate registration. Such a mask absorbs light of the wave lengths which one or more of the subtractive dye images of a colored original are intended to transmit but which are absorbed. It is prepared by exposing a light-sensitive silver halide emulsion layer to a transparency containing dye images having a wide range of tones from the pure color to white. It is exposed in such a way that when mask is suitably colored and placed in registry with the transparency, its spectral absorption at every point of the image combined with the undesired absorption of the given set of dyes to light absorbed by mask are equal to a fixed value. Thereafter the sensitive layer is developed and suitably colored in the region of the original exposure. The conditions are obviously set by the maximum impurity present in the image. Invented by Ralph M. Evans, Rochester, N. Y. Assigned to Eastman Kodak Company, Rochester, N. Y. Application October 3, 1941. 7 claims.

2,376,596. PREPARING A SCREENED NEGATIVE for use in producing etched intaglio printing elements. A photographic plate or film is exposed through a halftone screen and light is manipulated through an aperture in a slotted diaphragm in such a manner that it hits the film so as to produce on the negative two series of continuously intersecting exposed portions that are symmetrically disposed about a median line. A positive is then made from the negative and in turn used to make a metal print on the printing element. Invented by Owen R. Huggins, South Norwalk, Conn. Assigned to Linotone Corporation, a corporation of New York. Application January 22, 1937. 12 claims.

Printing Inks and Related Chemicals:

2,375,752. INK COMPOSITIONS having decreased tendency to flow out from under type and greater chemical stability, are said to be provided by using a polymerized rosin ester as the resin constituent of the ink, dissolved in 22 deg. Baume mineral ink oil, an admixture with a pigment such as carbon black. Drying oils such as bodied linseed oil, bodied castor oil, etc., may be used in restricted quantities. A companion patent, 2,375,753, is not here reported because it relates to coating compositions for metal and wood, rather than to printing inks. Invented by Irwin C. Clare, Elmhurst, Del. Assigned to Hercules Powder Company, Wilmington, Del. Application February 9, 1942. 3 claims.

2,375,786. IMPROVED CALCIUM SULPHITE, useful as a filler or pigment in inks and paints and as a paper coating ingredient, is produced by the reaction of a concentrated milk of lime suspension in the form of a fine spray with sulphur dioxide gas. The milk of lime, introduced into an absorber while the atmosphere rich in sulphur dioxide occupies most of the volume of the absorber, is agitated and brought into a fine spray. Resulting precipitate is treated with an acid until the pH of the slurry is below 3.1 and approximately 10 to 40% of precipitate is converted into a soluble salt. A smaller amount of casein is needed for bonding this product to paper fibers than is needed with prior known types of calcium sulphite. Invented by Gerald Haywood, Westernport, Md., and Wright M. Welton, Piedmont, W. Va. Assigned to West Virginia Pulp and Paper Company, New York, N. Y. Application August 2, 1940. 18 claims.

2,376,319. TEXTILE PRINTING PASTE made from emulsions of aqueous dyestuff solutions emulsified in hydrophobe solutions in volatile organic solvents of rubber. Emulsion is applied to fabric with a conventional intaglio cylinder, the dyestuff is fixed on the fabric, and the fabric is dried. As the emulsion is applied to the cloth and the emulsion breaks, the dyestuff solution penetrates into the yarns of fabric. Since the outer phase and the bodying agent are mutually repellent, the non-aqueous phase helps to prevent undue spreading of the aqueous phase. There-

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fore fine printing is obtained which preserves the fine lines of a photogravure engraving even on materials as difficult to print as cotton flannel. Invented by Norman S. Cassel, Ridgewood, N. J. Assigned to Interchemical Corporation, New York, N. Y. Application May 27, 1940. 5 claims.

2,376,378. COATINGS to go on top of printed surfaces are produced by adding an active and latent solvent and a diluent to the ester base produced by this invention, which is made by first wetting starch with glacial acetic acid and heating to 235 deg. F. Acetic anhydride is catalyzed with 66 deg. Baume sulfuric acid and added to the first mixture. The product is a primary, acetone soluble, high grade, low viscosity starch. It is also useful in making coatings water and dirt repellent and grease resistant, so as to be adapted to coating food wrappers. Invented by John D. Murray, Chicago, Ill. Unassigned. Application September 20, 1941. 6 claims.

2,376,467. PRECIPITATED METALLIC PIGMENTS, suitable for use in paints or inks, are prepared in deflocculated, highly dispersed, finely-divided form, by reacting a water-soluble pectate and a water-soluble salt having the cation of the desired metallic compound. This pectate compound is reacted with a second water-soluble salt having a cation which will form a water-soluble pectate and the anion of the desired metallic compound. Mixture may be thoroughly triturated with oil after which water is introduced to dissolve the pectate and the oil and water phases are then separated. Invented by Clarence Walter Wilson, Norco, Calif. Assigned to California Fruit Growers Exchange, Los Angeles, Calif. Application February 18, 1942. 4 claims.

2,376,504. PRINTING INKS, paints, and varnishes are prepared by using ester gums from polyallyl alcohols esterified with abietic or rosin acids. These alcohols esterify easily with rosin to produce ester gums of good color, hardness and high softening point. Resins suitable for sizing textiles can be made by hydrogenating the polyallye polyabietates at elevated temperatures and pressures in the presence of finely divided nickel catalyst. Invented by Harry Fred Pfann, Greenwich, and Edward L. Kropa, Old Greenwich, Conn. Assigned to American Cyanamid Company, New York, N. Y. Application October 23, 1942. 6 claims.

2,376,895. LIGHT-STABLE LEAD PIGMENTS to be used in preparing printing inks, contain larger amounts of halogen elements with lead silicate than was formerly possible. They are made by mixing 55 parts lead oxide, 45 parts silica and sufficient water to form a thick slurry. Mixture is milled for 1¼ hours and then 10 parts of ammonium chloride in 100 parts of water are added to the mill charge. Milling is continued for ¼ hr. longer, and then the mixture is dewatered and dried. Dry material is calcined for 6 hrs. in a temperature range from 420-450° C. A white pigment with greatly increased tinting strength is obtained. Invented by Louis E. Barton, Windsor, Conn. Unassigned. Application February 3, 1943. 12 claims.

2,376,908. MATT EFFECTS FAST TO SOAPING can be produced on lustrous fibers such as viscose, both locally by means of a printing process and in the piece by a padding process, by fixation of a white pigment using casein or albumin as a fixation agent. The original soft feel of the fibers is retained by this process. An emulsion of water, Marseilles soap as dispersing agent, petrol, and castor oil is mixed with the fixation agent, the white pigment, and water, and the mass, which has the consistency of a printing paste, is printed on the material. The printed material is dried, steamed for eight minutes, and washed. Invented by Georges de Niederhausern, Basel, Switzerland. Assigned to Durand & Huguenin S. A., Basel, Switzerland. Application January 10. 1941. 8 claims.

2,377,593. ETCHING INK which will leave a permanent mark on metal, such as steel, brass and bronze. It comprises water, molybdic acid, mercuric chloride, copper sulphate, antimony trichloride, hydrochloric acid, sulphuric acid and nitric acid. Invented by Donald L. Vande Bunte, Detroit, Mich. Assigned to Packard Motor Car Company, Detroit, Mich. Application February 9, 1942. 3 claims.

2,377,610. STABILIZATION OF FATTY MATERIAL. Invention relates to the stabilization of fatty materials such as fatty acids, their esters and other derivatives, and the improved products may be in the form of inks, plastics, lacquers, etc. Process of stabilizing fats against rancidity comprises embodying therein a solution of gum guaiac in a higher fatty acid partial glyceride, the latter solvent being added to stabilized fat in an amount insufficient to alter the shortening properties thereof. Invented by Leo C. Brown, Chicago, Ill. Assigned to Industrial Patents Corporation, Chicago, Ill. Application February 11, 1942. 6 claims.

2,377,834. REDUCING SYNERESIS OF METHYL CELLULOSE. Methyl cellulose, widely used as a thickening agent for printing and dyeing pastes, is caused to have a reduced tendency to synerize at high temperatures by adding to it a cold-water soluble salt of a cellulose glycolic acid in an amount not to exceed the weight of the methyl cellulose. Preferred agent is the ammonium or an alkali metal salt of a cellulose glycolic acid. The methyl cellulose and the salt may be mixed in either wet or dry state. Invented by Peter R. Wenck, Midland, Mich. Assigned to Dow Chemical Company, Midland, Mich. Application July 4, 1942. 2 claims.

2,378,276. PRINTING PASTES containing diazonium salts derived from ice color diazo compounds are prevented from thinning by the use of water soluble esters of organic di- and tri-basic carboxylic, sulfonic and sulfocarboxylic acids, the acid portion being free from olefinic double bonds and acetylenic triple bonds and the alcoholic portion containing at least one olefinic double bond or at least one acetylenic triple bond. The inhibitors may be added to the ice color diazo components either before or after diazotization. Invented by Frederic H. Adam and William B. Hardy, Bound Brook, N. J. Assigned to American Cyanamid Company, New York, N. Y. Application July 5, 1943. 9 claims.

2,378,305. PRINTING PASTES containing diazonium salts derived from ice color diazo components are, in this case, prevented from thinning by associating the salt with a water soluble sulfonic acid containing at least one olefinic double bond or acetylenic triple bond for each 10 carbon atoms. Since a salt of the sulfonic acid may vary readily be handled and the prevention of thinning is not influenced by the nature of the cation, sodium and potassium salts of the sulfonic acids are the most convenient form of inhibitors. Invented by Hans Z. Lecher, Plainfield, and William B. Hardy and Frederic H. Adams, Bound Brook, N. J. Assigned to American Cyanamid Company, New York, N. Y. Application July 5, 1943. 13 claims.

2,378,363; 2,378,364. ALKYLATED MELAMINE-FORMALDEHYDE COATING COMPOSITIONS and BATAVIA DAMMAR RESIN COATING COMPOSITIONS especially useful in the manufacture of printing inks, in the treatment of paper, cloth, in adhesives, and in the production of paints and enamels. Composition contains hydrogenated methyl abietate (Batavia dammar resin is used instead of this in patent 2,378,364) and a melamine-formaldehyde resin which has been reacted with n-butanol and wherein the molal ratio of formaldehyde to melamine is at least about 4:1. Various fillers, pigments, dyes, and lakes may be added to the composition. Invented by Robert C. Swain, Riverside, and Pierrepont Adams, Stamford, Conn. Assigned to American Cyanamid Company, New York, N. Y. Applications for both patents, October 26, 1940. 4 claims, each.

2,378,365-6. COATING COMPOSITIONS CONTAINING METHYL METHACRYLATE and ROSIN-MODIFIED PHENOL-FORMALDEHYDE, respectively. These patents pertain to the manufacture of resins similarly as patents 2,378,363-4, immediately preceding. Coating composition contains substantial amounts of rosin-modified phenol-formaldehyde resin (in patent 2,378,365 polymeric methyl methacrylate is used instead of the above resin) and a melamine-formaldehyde resin which has been reacted by heating until condensed with n-butanol wherein the molal ratio of formaldehyde to melamine is at least about 4:1. Patent 2,378,365 specifies the composition for coating paper and cloth, and particularly in the production of electrical insulation, in the manufacture of safety glass, adhesives, etc., while patent 2,378,366 mentions drying oil varnishes such as tung oil and linseed oil, printing inks, etc., as products in which the composition may be used. Invented by Robert C. Swain,

Riverside, and Pierrepont Adams, Stamford, Conn. Assigned to American Cyanamid Company, New York, N. Y. Applications October 31, 1940, and December 5, 1940, respectively. 4 claims, each.

Printing Presses and Equipment:

2,375,793. PRESS FOR PRINTING TITLE BLOCKS on tracing cloth, paper or other material as used by draftsmen. Press has a stationary bed over which a form cylinder moves. Racks move the cylinder, and geared wheels carried by the cylinder engage with the racks. A frame movable on guide rails positioned on the racks has bearings supporting the cylinder. The racks are raisable so that cylinder may be changed from an impression to a non-impression position. Invented by Emmett F. Kidrick and Walter G. Miller, Bremerton, Wash. Unassigned. Application January 11, 1943. 7 claims.

2,375,812. MACHINE FOR APPLYING COATING in a design to the flat stock or web from which fiber containers are to be made. An intaglio roller applies the coating and a rotating roller picks up the coating substance. A doctor blade, which bears against the roller and scrapes off all the coating substance except that which is disposed in the recesses of roller, is heated so that the coating is kept in a liquid condition and is prevented from adhering to the blade. Blade is heated by an elongated heating element adjacent to, and extending longitudinally of, the doctor blade. Electrical inlet and outlet boxes mounted at the ends of the carriage on which blade is mounted provide energy for heating element. Invented by Elof Nordstrom, East Orange, and Victor T. Grover, Maplewood, N. J. Assigned to American Can Company, New York, N. Y. Application October 3, 1941. 1 claim.

2,375,915. PREPARATION OF ANHYDROUS COMPOUNDS OF THE PENTITOLS adapted for use in the manufacture of printing cylinders and oil cloth, as well as esterifying agents in fat and lacquer industries, softening agents in the varnish industry, etc. Process comprises heating the pentitols to a temperature of from 50° to 70° C. in the presence of methionic acid. Mixture is cooled and water distilled therefrom under a vacuum until the pentitols are dehydrated. Invented by Felix Grandel, Emmerich, Rhine, Germany. Vested in the Alien Property Custodian. Application November 26, 1940. 2 claims.

2,376,620. INKING MECHANISM which is said to overcome certain inking difficulties for high speed rotary intaglio printing presses. Ink is pumped into contact with an engraved cylinder at relatively low pressure. It is maintained in pressure contact with cylinder for at least one-fourth of its circumference and the excess is doctored off while the pressure is maintained. Maintenance of pressure is effected by the use of a shell of the same general curvature as cylinder, maintained at a very slight distance (of the order of 1/8 in.) from the cylinder, flaring out just before doctoring to permit escape of excess ink. Invented by Thomas E. Piazze, Lyndhurst, N. J. Assigned by mesne assignments to Champlain Company, Inc., New York, N. Y. Application September 26, 1942. 7 claims.

2,377,089. METHOD AND MEANS OF PRINTING in which the surface of a rotating intaglio printing cylinder is subjected to a vacuum to remove surplus ink components. The surface is moved into an enclosure and ink is applied forcefully to drive air from the intagliations in cylinder. Surface is then moved through the enclosure while laden with the ink so applied and ink is again forcefully applied to completely fill the intagliations. Ink laden surface is now subjected to a vacuum, excess ink is wiped from surface and immediately the surface is removed from the vacuum and a web is applied to cylinder to make a printed impression on it. Invented by Axel E. Lundbye, Springfield, Ohio. Assigned to The Crowell-Collier Publishing Company, Springfield, Ohio. Application July 15, 1941. 6 claims.

2,377,110. PRINTING ROLL INKING DEVICE for textile or wallpaper in which the doctor blade and the printing roll are used to form a reservoir for the color. This assures the holding of a shallow pool of color in direct contact with the engraved surface of the roll. Doctor blade assembly consists of two doctor blades, end walls having parallel plane surfaces slidably engaging the ends of the roll and forming fluid seals. Means are associated with end walls for supporting the two blades and holding one in position to remove foreign matter, such as lint, from the roll and the other to hold the pool of color in contact with roll. Ink supporting doctor blade is urged into sliding contact with intaglio surface of rolls by a weight and cord mechanism. Invented by Herman A. Smith, Holden, Mass. Assigned to Rice Barton Corporation, Worcester, Mass. Application September 15, 1943. 17 claims.

2,377,165. CLUTCH SYSTEM FOR A ROTARY WEB PRINTING PRESS UNIT having a printing mechanism, a web supply, a press drive, a folder, and web feed rollers located between the web supply and printing mechanism and between the printing mechanism and the folder. Combined friction and one-way clutches operatively connect the press drive and rollers. Clutches have coacting spring pressed friction clutch members operable to provide non-slip connections during the acceleration of the press and slip connection during the running of the press; also have coacting one-way clutch members operable to lock the rollers to the press drive when the rollers start to overrun the press drive due to its sudden deceleration. Invented by Hans J. Luehrs, Westerly, R. I. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application March 17, 1943. 16 claims.

For Patent Research in the U. S. Patent Office, or a prompt estimate on any type of search, address INVENTION, INC., Munsey Bldg., Washington, D.C.

2,377,269. INKING MECHANISM for use with platen printing presses of the Gordon type. Several rollers move in unison transversely across the surface to be printed, one roller being automatically retained out of contact with such surface during movement in one direction and contacting the surface when moving in the opposite direction. The mechanism for controlling the contact of this roller includes tracks placed along opposite sides of the surface to carry wheels mounted on all rollers. A supplemental rail is adjacent each track and is movable to lie flush with track or to lie above it. The wheels for the contacting roller are wider than the wheels of other rollers and may therefore engage the track and supplementary rail when these two are flush. On return movement, these wheels engage supplemental rails only which are then above the tracks. Roller is thus held out of contact with printing surface. Invented by Charles F. Root, Cleveland, Ohio. Assigned to The Chandler & Price Company, Cleveland, Ohio. Application April 8, 1943. 20 claims.

2,377,482. INK APPLYING MECHANISM, for a rotary intaglio printing press, designed to deliver a uniform supply of ink to all parts of the cylinder. A nozzle, positioned closely adjacent the cylinder to be inked, has a narrow longitudinal slot opening toward the cylinder. A longitudinal chamber is above slot, the two being of the same length and the chamber communicating with slot along the length of the chamber. A supply duct is connected to chamber by a manifold, which manifold branches from duct to chamber in a large number of passages, all of which are the same length. Equally spaced openings are divided by streamlined walls which terminate adjacent the slot. Invented by Curtis S. Crafts, Oak Park, Ill. Assigned to The Goss Printing Press Company, Chicago, Ill. Application October 14, 1942. 4 claims.

2,377,662. INKING MECHANISM FOR ROTARY PRINTING PRESSES in which the ink transfer roller may be moved into and out of contact with its ink supply and distribution rollers without affecting the drive for the ink supply roller or the initial adjustments of the ink

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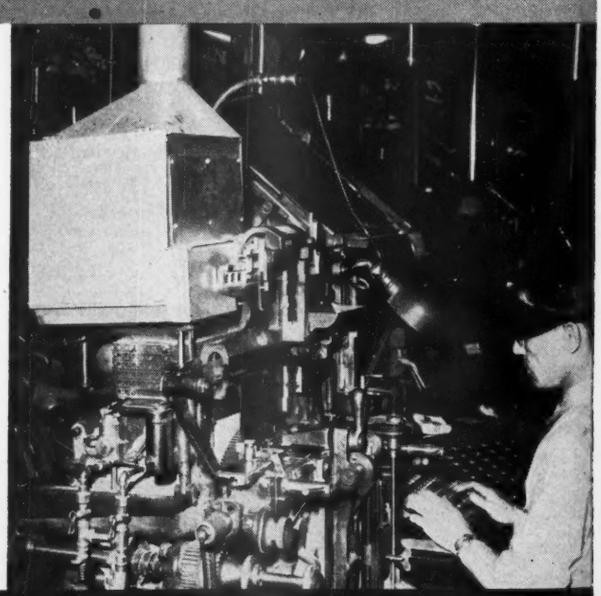

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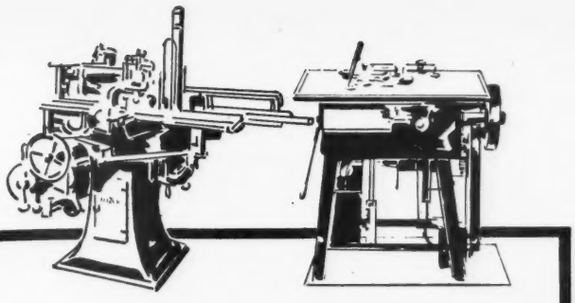

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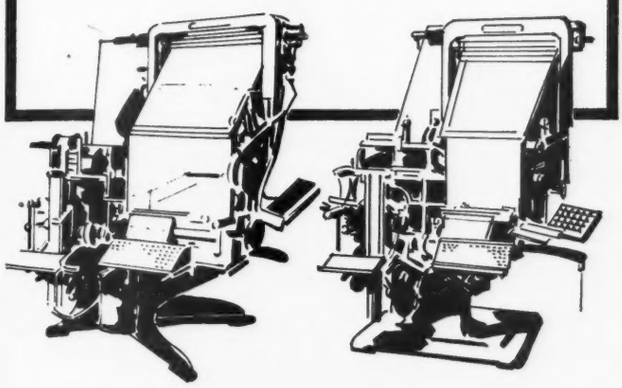

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transfer roller for parallelism, and while press is running or at rest. End supports for transfer roller are longitudinally slidable in brackets secured to side frames and slidably fulcrumed on hand shaft. Blocks are adjustably secured to these end supports and have transverse recesses with parallel upper and lower walls. Eccentrics on the hand shaft engage upper and lower walls so that end supports and transfer roller are moved into and out of contact with supply and distribution rollers by rocking movement of the hand shaft. Invented by Howard M. Barber, Pawcatuck, Conn. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application May 26, 1943. 3 claims.

2,377,663. INKING MECHANISM FOR ROTARY PRINTING PRESSES in which the oscillating ductor roller may be acted upon for temporarily stopping ink flow during the warming-up period of the drying apparatus. End supports for a ductor roller are eccentrically pivoted on a hand shaft. Such end supports may be initially adjusted to bring the ductors roller into parallelism with the ink supply and distribution rollers. Means are provided for rotating the ink supply roller and for oscillating the end supports and thereby the ductor roller between the ink supply and distribution rollers. The hand shaft may be rocked to move ductor roller to its operative and inoperative positions without affecting its angular movement and initial adjustment. Invented by Howard M. Barber, Pawcatuck, Conn. Assigned to C. B. Cottrell & Sons Company, Westerly, R. I. Application May 26, 1943. 6 claims.

Transmission of Color Pictures by Facsimile

TRANSMISSION by facsimile of black and white photographs has become commonplace, but a recent development by Finch Telecommunications, Inc., makes possible the successful transmission of colored photographs, reports *Allied Radio and Electronic News*.

By the Finch method, colored photos are transmitted in the form of three color-separation films which, at the point of reception, are processed by ordinary photographic methods into a three-color print. Equipment and procedure differ only slightly from that used for ordinary black and white facsimile.

In transmitting photographs in black and white, transmitting and receiving drums are the same size and are synchronized to operate at equal speeds. The scanning head assembly, which includes an exciting lamp, lens system and photocell, swings from left to right through an angle of 42 degrees and returns to its starting point in one second.

In the transmission of color, a color filter is interposed between the scanning eye and the picture on the drum of the transmitter. This filter contains triangular sections of the three primary colors so that each in turn is filtered out and transmitted.

The transmitting cylinder revolves at 300 RPM while the color disk, through which the scanner "sees" the picture, revolves but once in the same time. Thus, each color is filtered out and transmitted in turn. The receiver, in a dark room, has on its drum unexposed films of the same size as the full color picture on the sending drum. The receiving drum revolves at only 100 RPM and has three times the circumference of the transmitting drum so that it takes three films, each of which records a color. When the transmitter has sent a complete line from top to bottom of a picture, the receiving drum has revolved only one-third of a revolution covering a single line on one color film. In this way the scanner selects and transmits impulses for the different colors and the receiving electric eye operates to expose the films in the proper places for each of the primary colors, red, yellow and green.

As recorded on the receiver the three films are positives. They are then developed and processed in the usual photographic manner and superimposed to form the finished color print.

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Professor Siegfried Assumes Position

The Department of Printing at Carnegie Institute of Technology as of July 1 will be headed by Prof. Laurance B. Siegfried, who comes to Carnegie from Syracuse University. Prof. Siegfried has been at Syracuse since 1940 as University Printer and Associate Professor of Journalism, and recently has also been serving as Chairman of the Editorial Board and Editor of the newly formed Syracuse University Press. Prof. Glen U. Cleeton, former Head of the Department of Printing, will continue as Chairman of the Department's Endowment Fund Plan through which $500,000 is to be raised by July, 1946.

Recent contributions to the Endowment Fund have been received from the Stanley L. Wessel Company, Chicago; Capitol Printing Ink Company, Washington, D. C.; and William Norwitz Company, Washington, D. C. Individual gifts have been made by Clyde J. Burhenn, Pittsburgh News Company, Pittsburgh; Stanley L. Cahn, The Adpress, Baltimore; J. Clifton Carr, Kollsman Instrument Division of Square D Com-

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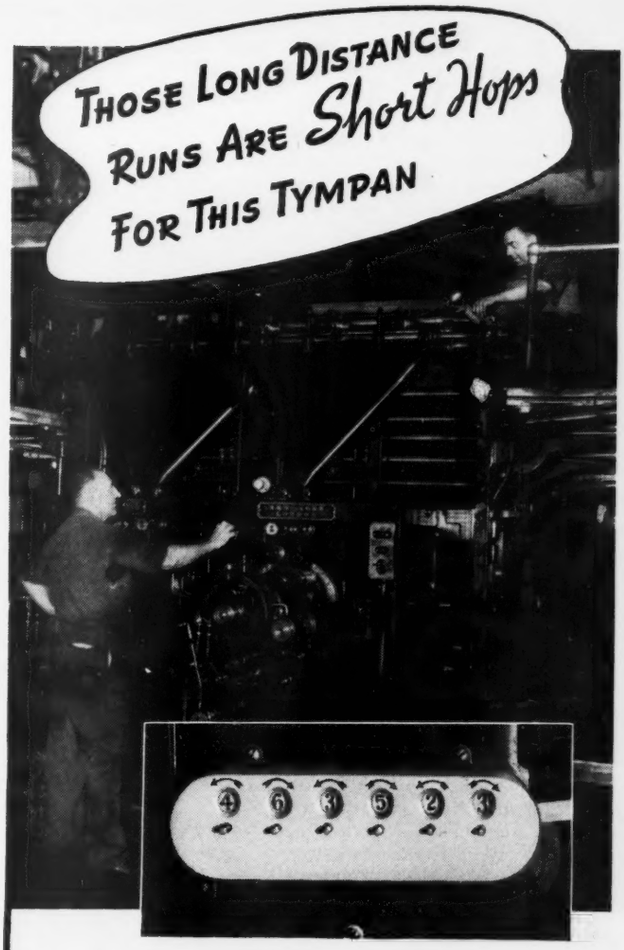

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The additional impressions you get along with fewer stops for clean-up, make "Spherekote" the outstanding tympan paper on the market today. You save tympan changes . . . you save idle press time for clean-up . . . you get better results. Write today for the new booklet which will show you the way to better printing impressions.

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pany, Elmhurst, N. Y.; Harold G. Crankshaw, Central High School, Washington, D. C.; Robert M. DuBois, The DuBois Press, Rochester; W. G. Forster, Hearst Enterprises, Inc., New York; Samuel Lebon, Lebon Press, Hartford; Jack Nathan, Wilbur Wright Jr. High School, Dayton; Frank E. Powers, Advertising Agencies Service Company, New York; Walter M. Sackett, R. R. Donnelley Company, Chicago; and from two alumni of the Department now in service, Captain J. R. Esser and Captain William McNeill.

Since the Endowment Plan was initiated for the Department in November of last year, 48 contributions have been received from individuals and business firms. More than half the amount of $500,000, set as the goal to be reached by July, 1946, remains to be subscribed.

Registration for classes in the Department of Printing for the current academic year will be held on October 1. It is anticipated that enrollment in printing classes will be considerably larger than has been true during the last two years.

American Type Founders announces the appointment of Ned Rudolph, to succeed E. A. Tracy as manager of the St. Louis branch office. Mr. Rudolph has been identified with the printing industry for more than twenty years, joining ATF in 1938. Mr. Tracy becomes special representative of the Company in the mid-west area.

Winners Announced in IPI Essay Contest

The judges of Ninth Printing Essay Contest sponsored by International Printing Ink in cooperation with the National Graphic Arts Education Association have selected the thirty winners. The top winners are:

First Prize—$500 War Bond—Paul Broman, Central High School, Duluth, Minn.

Second Prize—$200 in War Bonds—Sammy Shannon, Murphy High School, Mobile, Ala.

Third Prize—$100 War Bond—Henry N. Taylor, Groton School. Groton, Mass.

Fourth Prize — $50. War Bond — George Edward Ehrlich, Weequahic High School, Newark, N. J.

Fifth Prize—$25. War Bond—J. David Tregurtha, Central High School, Trenton, N. J.

Sixth to Thirtieth Prizes—$5.00 in Wat Stamps—Were won by 25 students from many sections of the United States.

The subject of this year's contest was *Printing in the Postwar World.* The jury was headed for the ninth consecutive year by Harry L. Gage, Vice President of Mergenthaler Linotype Company, Chairman, and the following jurors: Dr. Howard T. Hvode, Research Fellow, Graduate School of Business Administration, Harvard University; the Hon. A. E. Giegengack, United States Public Printer; Dr. Webster N. Jones, Director of the College of Engineering, Carnegie Institute of Technology; and Beardsley Ruml, Treasurer of R. H. Macy Company, New York, N. Y.

Praises Work of Giegengack

The Hon. Augustus E. Giegengack, Public Printer of the United States, will continue in that office, reports *Printing News* (New York). This is according to authentic information revealed in the course of President Daniel A. McVicker's address to the New York Employing Printers Association on May 28.

President McVicker, paying tribute to the Public Printer at the dinner, set at rest all rumors to the contrary by reading a letter from Senator Carl Hayden of Arizona, chairman of the Joint Committee on Printing of Congress and generally spoken of as the chairman of the Public Printer's Board of Directors.

Senator Hayden's letter advised Mr. Giegengack that he, the senator, was authorized by the President to assure the Public Printer and others interested that no change was contemplated in the executive position in the GPO and that the President regarded him as an efficient public servant. The letter should thus end speculation within the industry and outside that may have been occasioned by many other changes recently in the administrative branches of the government.

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Device Facilitates Mounting Engraved Plates on Stereotype Curved Dummy

FROM time to time the Dayton (O.) *Daily News* prints full page advertisements for Dayton department stores direct from all-over zinc photo-engraved halftone curved plates. The plates are 21 ga. thick and are mounted securely on a dummy stereotype plate before sending the combination plate to the pressroom. (Any gauge zinc plate may be used for this purpose.) Before mounting on the stereo dummy, the zinc plate is bumped up or relieved in the highlights so that the solid or darker portions have a higher printing surface.

To facilitate mounting the zinc plate on the stereo dummy, Adolph Bobe, Stereotype Foreman at the *News* designed and had a mounting cylinder made which is shown in the accompanying illustration.

Before describing the mounting cylinder, however, we'll tell you about the making of the dummy and preparation of the zinc plate.

A dummy stereotype plate is cast and backed up with a plain sheet of zinc plate stock of the same thickness used by the photo-engraver which is 21 ga. (0.032 in.) and placed in the plate shaving machine. After the stereo dummy has been shaved so that the zinc and stereo plates in combination are of the same thickness as a standard stereotype plate, the top and bottom edges of the dummy are routed back from each edge to a distance of ¾ in. The routing is approximately 0.060 in. deep.

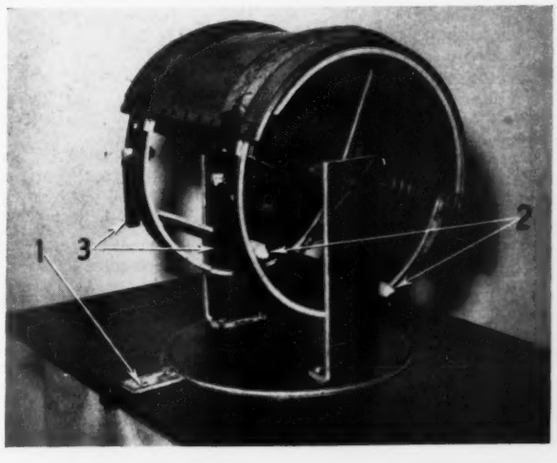
Two proofs are then taken from the hand-inked zinc plate on 0.005 in. thick manila paper on the stereotype molding machine. The highlights in the proofs are cut by hand with a knife. Both proofs in exact register are then fastened to the back of the zinc plate with rubber cement. The plate is passed through the molding machine to bump all the solids.

The zinc plate is now precurved in a tinner's rolling machine before placing it on the mounting cylinder.

The zinc plate and shaved-down stereo dummy are placed on the mounting cylinder and held tightly in place by two felt-covered bands or straps as shown in the illustration to hold the plate in position while fastening it to the dummy with screws.

The ends of the zinc plate overlapping the routed-out surface of the stereo dummy are now bent down. This operation is performed with blacksmith's nippers, with the sharp jaw edges ground off.

The bands or straps are fastened at one end by hook arrangement which permits them to be taken off after the



View showing device used at the Dayton (O.) *Daily News* to facilitate mounting thin zinc photo-engravings on stereo dummy plates. The cylinder standard is fastened to a steel base plate which permits swiveling the cylinder for convenient working position. The cylinder may also be rotated to position for best angle from which to work while applying the screws holding the engraving to the dummy.

—Acme Photo

O. P. Powell, president of The Old Time Printers Association, of Chicago, recently presented plaque awarded by the Association to R. O. Vandercook, inventor of the original Vandercook proof press and founder of the company, Vandercook & Sons, Inc.

plate has been screwed to the dummy. The other ends *3* in the illustration are looped so that a cross piece in each lever pulls the band or strap down tight against the plate when the levers are pushed down.

With an electric drill eight holes spaced about 1½ in. apart are now drilled with a No. 29 twist drill along the edge of the zinc plate and through the stereo dummy. The holes are drilled centrally of the ¾ in. routed-out space in the dummy. After having been drilled, the holes are countersunk for the reception of 8-32 flt. hd. steel screws. The holes, however, are tapped for only a couple threads. When each screw is turned up with a screwdriver, the screw itself cuts its own threads in the stereo metal.

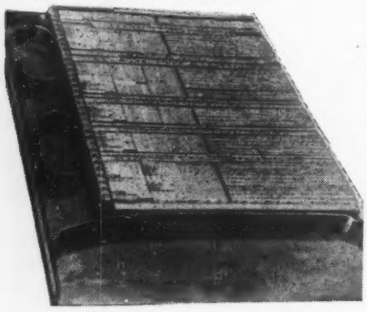
The mounting cylinder was made in a Dayton machine shop to specifications furnished by Mr. Bobe. It is of the same diameter as the *News's* press cylinders. Its construction will be apparent upon studying the illustration. Except for the surface taken up by the stereo plate including clearance of approximately ¾ in. under each edge of the plate, the cylinder has been cut away. The open part of the cylinder permits drilling through the plate without drilling into the cylinder itself, and also permits working inside the ends of the plate.

The two bars *2* are used to rotate the cylinder for handy working angle when drilling the holes.

The cylinder is mounted on two standards as shown. The standards in turn are mounted upon a circular plate which is free to be rotated except when the catch *1* holds the circular base plate against movement.

Mechanical and production executives are invited to submit to the editor a letter in which they describe something which has been devised to eliminate production or mechanical bottlenecks in their plant.

Untie Your Printers!



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6¼ inch	10.00	12 inch	15.00
8½ inch	12.00	17¼ inch	23.00
8¾ inch	12.00	19½ inch	26.00

Size	GALLEY SIDE LOCK	Price per Hundred
8 inch		$8.00

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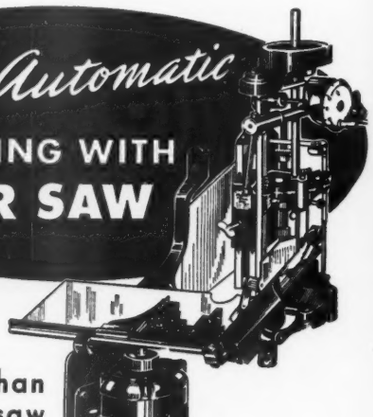

Now, more than ever, Mohr saw owners appreciate the important savings in time, made possible by this automatic slug saw. Slugs are cut to any desired length as they are ejected from the linecasting machine. 100% automatic operation. Accurate and speedy.

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A Primer in Book Production

THIS 95 page book has been prepared by the author with the idea of explaining the elementals of book production in an elementary manner.

There are 21 chapters, each of which explains some procedure necessary in the art of book manufacture. The first chapter deals with estimating copy when received, and then explains progressively preparing copy for the composing room, selection of paper with brief discussion of the utility of each, ordering paper, how type is set, handling proofs; cloth, board and end papers, covers and jacket, illustrations, offset and gravure plates, duplicate printing plates, presses and presswork, imposition, folding machines, gathering and collating, sewing and trimming, forwarding, casemaking, cover finishing, casing-in, and finally inspection and shipping.

It is our impression that Author Frank B. Myrick has succeeded admirably in the difficult art of explaining complicated technical procedures clearly by means of simple language.

A Primer in Book Production—By Frank B. Myrick, Managing Editor, *Bookbinding & Book Production*, Size, 4¾ in. by 7½ in., 95 pages, printed letterpress, bound in heavy flush boards nicely hinged on cloth spines. Set in Intertype Garamond; display in Monotype Garamont. Printed on Champion Lexicon Antique. Composition and printing by Triggs Color Printing Co., binding by F. M. Charlton Co. Price, $1.50. May be ordered direct from *Bookbinding & Book Production*, Guardian Life Bldg., 50 Union Square, New York, N. Y.

The Industrial Housekeeping Manual

MECHANICAL executives should be interested in a new book published by the National Foremen's Institute, Inc., Deep River, Conn. The book is entitled *The Industrial Housekeeping Manual* and was written by R. F. Vincent. It consists of 115 pages. *Printing Equipment Engineer's* point in mentioning this book here is that many plant executives do have something to say about the methods used in plant cleaning operations. In any event, executives can be of great help to the building custodian who may be in charge of this work; particularly if they are aware of what can be done to maintain *clean* conditions in the plant.

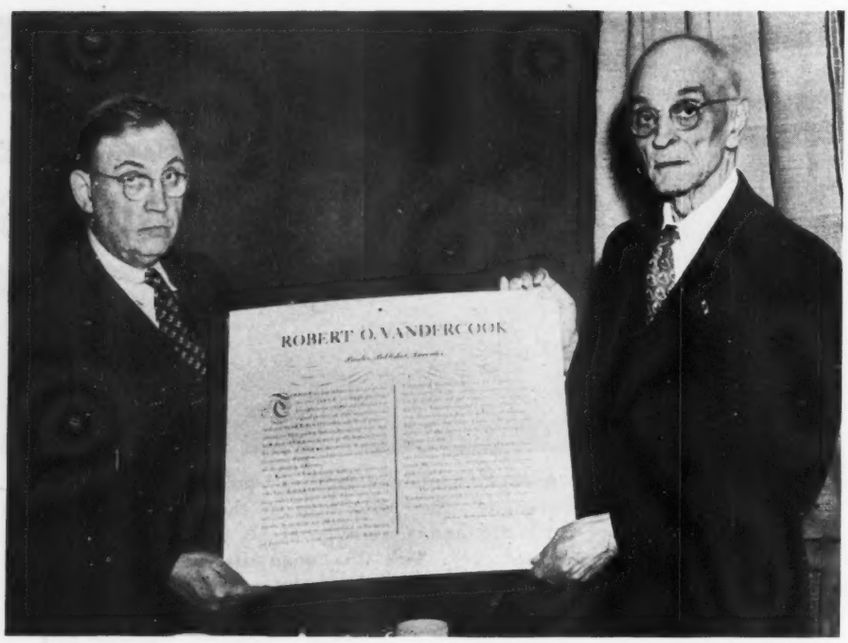
Just as in the case of any other vocation, there are right and wrong ways to do things. The author of this book explains the whys and wherefores of thorough plant housekeeping.

Among the chapters treating on industrial housekeeping are the following: Importance of Work Methods, Floor Surfaces, Cleaning Sanitary Fixtures and Lockers, Common Sense About Soaps, Selection, Use and Care of Cleaning Equipment, Working Schedules, Vermin Extermination, etc.

The Industrial Housekeeping Manual—By R. F. Vincent, 115 pages, size 5⅜ in. by 8¼ in., bound in red pebbled cloth, stamped cover. Price $2.50 per copy. May be obtained from National Foremen's Institute, Inc., Deep River, Conn.

Remelting Type Metals

Federated Metals Div. of American Smelting and Refining Co., has published a hanger card, 10 in. by 13 in., on heavy cardboard. The card contains instructions for proper remelting of type metals. The metal remelter is warned to omit cigarette butts, gum wrappers and old shoes from the metal to be remelted because they are downright objectionable. The seven steps necessary in doing remelting work properly are explained together with humorous cartoon drawings. A copy may be obtained from Federated Metals Div , American Smelting and Refining Co., 120 Broadway, New York 5, New York.



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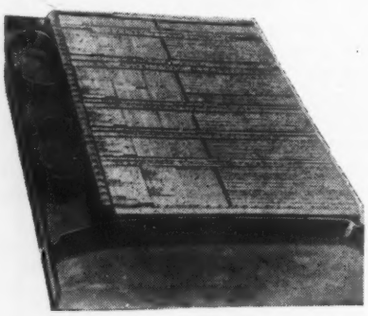

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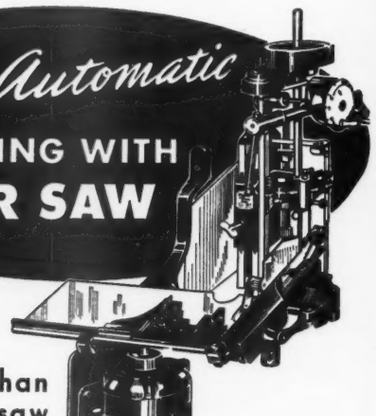

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MECHANICAL executives should be interested in a new book published by the National Foremen's Institute, Inc., Deep River, Conn. The book is entitled *The Industrial Housekeeping Manual* and was written by R. F. Vincent. It consists of 115 pages. *Printing Equipment Engineer's* point in mentioning this book here is that many plant executives do have something to say about the methods used in plant cleaning operations. In any event, executives can be of great help to the building custodian who may be in charge of this work; particularly if they are aware of what can be done to maintain *clean* conditions in the plant.

Just as in the case of any other vocation, there are right and wrong ways to do things. The author of this book explains the whys and wherefores of thorough plant housekeeping.

Among the chapters treating on industrial housekeeping are the following: Importance of Work Methods, Floor Surfaces, Cleaning Sanitary Fixtures and Lockers, Common Sense About Soaps, Selection, Use and Care of Cleaning Equipment, Working Schedules, Vermin Extermination, etc.

The Industrial Housekeeping Manual—By R. F. Vincent, 115 pages, size 5⅜ in. by 8¼ in., bound in red pebbled cloth, stamped cover. Price $2.50 per copy. May be obtained from National Foremen's Institute, Inc., Deep River, Conn.

Remelting Type Metals

Federated Metals Div. of American Smelting and Refining Co., has published a hanger card, 10 in. by 13 in., on heavy cardboard. The card contains instructions for proper remelting of type metals. The metal remelter is warned to omit cigarette butts, gum wrappers and old shoes from the metal to be remelted because they are downright objectionable. The seven steps necessary in doing remelting work properly are explained together with humorous cartoon drawings. A copy may be obtained from Federated Metals Div , American Smelting and Refining Co., 120 Broadway, New York 5, New York.

WPB Notes

Order M-11-B (Zinc) Revoked

ALL restrictions on the use of zinc have been removed through the revocation of order M-11-b and Direction 1 to the order, the War Production Board said on June 14. The effect of this action will be merely to give zinc purchasers a "hunting license," as zinc continues in tight supply, WPB said. Existing allocation controls on slab zinc will be retained. Direction 1 to order M-11-b previously increased the number of permissive uses of zinc for coatings other than paint, during the second and third quarters of 1945.

Distribution Refused

PERMISSION to continue distribution of two comic magazines, *Ribtickler* and *Book of All Comics*, was refused by the War Production Board's Appeals Board, it was announced by WPB on June 22. The magazines had been printed in violation of order L-244, which limits the paper tonnage that can be used to print magazines and periodicals.

The decision, WPB said, may set up a precedent for cases involving many millions of copies of comic and detective magazines that have been printed in violation of paper quota regulations.

The Appeals Board held that the "evidence at hearing failed to support claim of severe hardship other than what was apparently self-imposed". The appeal was filed by Belmont Books, Inc., and Giant Books, Inc. Victor S. Fox is president of both corporations. The two comic magazines *Ribtickler* and *Book of All Comics* were published under the imprint of Chicago Nite Life News, Inc., 250 West Broadway, New York, N. Y., which has used paper greatly in excess of its quota.

The company that printed *Ribtickler* and *Book of All Comics* used, for the account of Chicago Nite Life News, 234 tons of paper in March 1945, whereas the consumption quota of Chicago Nite Life News, Inc., under Order L-244 is only 3.8 tons per quarter.

L-Order, Commercial Printing and Duplicating, Amended

ON July 3, the War Production Board amended Commercial Printing and Duplicating Order, L-241. The purpose of the order has been revised to do four things: "First, it limits the tonnage of paper which a printer may use for commercial printing. This is called his 'consumption quota.' A printer may not exceed his consumption quota even though the paper is physically available to him. Second, it limits the tonnage of paper which may be accepted by or on behalf of a printer. It also limits the tonnage of paper which may be accepted by a purchaser of commercial printing for a printer's use. Third, it limits the basis weight of paper which may be used in printing certain items. Fourth, it limits the tonnage of paper which a person may cause to be consumed in printing certain items."

Commercial printing is defined to mean all printing or duplicating produced by types of printing or duplicating machines defined in the order.

With respect to transfer of quotas, the quotas provided by one WPB order may not be used for the purposes set forth in any other order. A printer may not use for commercial printing any part of a consumption quota established under L-240, L-244, or L-245, and he may not permit any part of his consumption quota established under L-241 to be used for newspapers, magazines or books.

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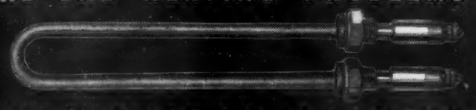

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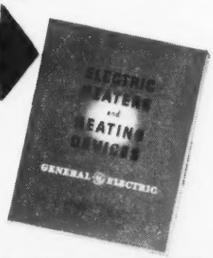

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quota, commencing in the third calendar quarter and in each calendar quarter following, no printer may use for commercial printing any paper in excess of his quarterly consumption quota.

Two new stipulations with respect to computation of consumption quotas are as follows:

"(2) If the printer's quarterly base tonnage is not more than 5 T., his quarterly consumption quota is 5T.

"(3) If the printer's quarterly base tonnage is more than 5 T. but not more than 10 T., his quarterly consumption quota is the same as his quarterly base tonnage.

"(4) If the printer's quarterly base tonnage is more than 10 T. but less than 12½ T., his quarterly consumption quota is 10 T.

"(3) If the printer's quarterly base tonnage is more than 12½ T., his quarterly consumption quota is 80% of his quarterly base tonnage."

Provision has been made for a person who used no paper for commercial printing in 1941, but who wishes to enter the printing business, to have a consumption quota of 5 T. per quarter commencing with the third quarter of 1945. However, before using any part of the quota he must file a statement (prescribed in the order) with WPB in Washington, D. C.

Under "Delivery Restrictions," no printer may accept, during the third calendar quarter of 1945 and each calendar quarter thereafter, and no person may accept for that printer's use, paper in excess of his permitted consumption during that calendar quarter.

Non-Warping Book Cover Paste Technique

SINCE publication of the formula for making Glucose Glycol Paste in the April issue of **Printing Equipment Engineer,** inquiry has been made as to whether the percentages given in the formula are by weight or by volume.

Technical Director M. S. Kantrowitz of the Government Printing Office has advised that the percentage of each ingredient in the formula is on weight basis —not by volume.

In addition, his further comment is as follows:

"The first five ingredients mentioned in the formula should be placed in the paste machine and the steam turned in until the glucose disolves. The agitator is then started and the flour is gradually sifted in. Cooking is continued until the paste becomes quite thick. The paste is then drawn off into containers and allowed to stand until used. The paste can be thinned slightly with water before using on casing-in machine.

"After the paste is removed from the cooker, it will be noticed that some paste adheres to the walls of the cooker and to the agitator. Several buckets of water can be used to remove this paste. This wash liquid is suitable for thinning the paste, where thinning is necessary before using on casing-in machine.

"After the paste has stood for several days, a slight separation of liquid will be noted. A brisk stirring will reunite the ingredients. This separation is not harmful to the paste.

"The seventh item specified in the formula is water—15%. This water comes from the condensation of steam during the cooking process. The steam line should be bled to remove water before commencing the cooking operation. In case direct steam is not used for cooking, the 15% water can be used to make a thin paste with the flour before the flour is added to the other ingredients."

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Most saws in use now are War Casualties. They should be replaced with new high-efficiency No. 3-A C&G Saw Trimmers. If you do not have the full facts on C&G equipment, you should send for catalog and order promptly for the earliest possible delivery.

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A certification (prescribed in the order) to the paper dealer or mill, provides that no person may deliver paper to a printer unless the printer furnishes, or has previously furnished, to the person making the delivery the certification substantially in the form given in the amended order. A new certification, however, need not be furnished by any printer who has furnished a certification persuant to Order L-241 as amended April 4, 1945.

Printer Held To Be Negligent

A PRINTER'S failure to check the validity of a publisher's paper quota certificate was held by the War Production Board's Appeal Board to be negligence on the part of the printer, in a decision announced on May 25 by WPB.

The question was decided in denying the application by the Neo Gravure Printing Co., New York, for permission to distribute 250,000 copies of a magazine called *The Guilty*, published by the R. B. Leffingwell Co., whose address was given as 233 West Erie Street, Chicago.

The latter company supplied the printer with a paper quota certificate. A check with WPB would have shown that the publisher had no quota, WPB officials stated. Under an order of the war agency, all copies of the magazine may be sold only as waste paper scrap. The decision by the Appeals Board stated: "Appellant's hardship is self-imposed and not different from that of other printers who have dealt with unreliable promoters issuing invalid certificates of quotas."

This decision will affect the release of some 5,000,000 copies of 17 comic and detective magazines, already printed and frozen in stock under orders of WPB.

Price Additions on Light-Weight Book Papers

SPECIFIC price additions allowed manufacturers on light weights of book papers have been extended to include a further addition for still thinner paper that may be made because of the scarcity of pulp, the Office of Price Administration announced on June 13.

In the event that thinner paper is produced than is covered by the light weights for which price additions of 1½ per cent, 2 per cent and 3 per cent already are allowed, manufacturers may add 4 per cent additional, effective June 18, 1945. These additions are made to the ceilings for standard weight book papers, and are allowed to compensate manufacturers for additional costs of producing thinner papers.

Heretofore, where no specific price addition was provided for light-weight papers, manufacturers were allowed to add the customary addition they had in effect during the October 1, 1941, to March 31, 1942, base period. OPA's action makes the addition uniform on new light weights for all manufacturers whether or not they produced the light weights in the base period. The action was recommended by the Book Paper Industry Advisory Committee.

The new 4 per cent differential will apply to machine finished paper on weights below 25 lbs. to supercalendered paper on weights below 30 lbs. and to machine coated papers on weights below 35 lbs. All weights are per 500 sheets of paper measuring 25 in. by 38 in.

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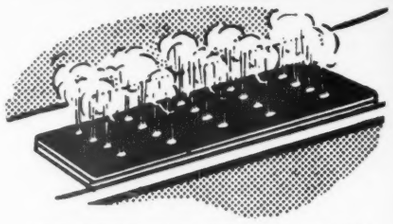

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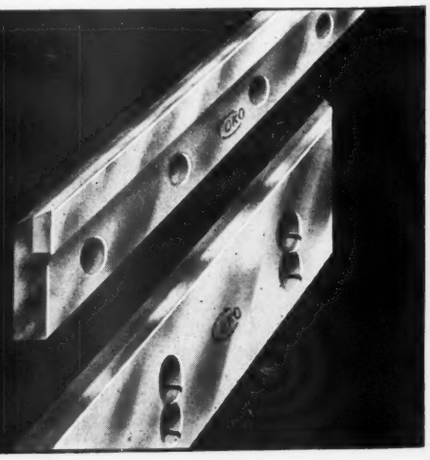

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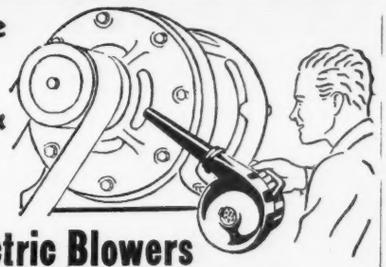

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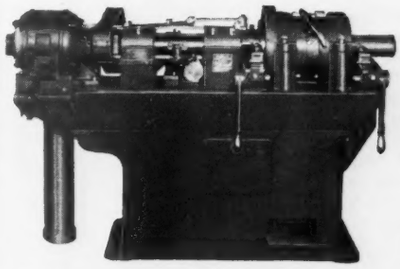

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Forbids Export for Resale

LIMITATION Order L-244 (Magazines and Periodicals) was amended on June 6 by the War Production Board to forbid the export for resale of magazines that the exporter knows or has reason to believe were printed in excess of the publisher's allowable paper consumption under the order. Order L-244, was amended to prevent the export for resale in any foreign country of illegally printed magazines, which domestic wholesalers or retailers are forbidden to dispose of except for redelivery to a supplier or for resale as scrap, WPB's Printing and Publishing Division explained.

Still Controls Commercial Printing and Print Paper

COMMERCIAL Printing Limitation Order L-241 still controls all types of commercial printing and duplicating, the War Production Board Printing and Publishing Division said on May 28.

Despite the recent revocation of Order L-226, which controlled production and distribution of new printing trades machinery, and L-54-c, covering office machinery, WPB has no intention of revoking or relaxing control of commercial printing itself nor control of print paper, division officials said.

Since the definition of "printing" in L-241 was based on Orders L-226 and L-54-c, however, it became necessary to redefine commercial printing specifically in L-241. To this end, an amendment issued today provides that commercial printing means all printing and duplicating produced by any of the following types of machines.

Hand and automatic sheet and web-fed platen presses; hand and automatic fed plate engraving presses, and flat-bed cylinder presses; proof presses; sheet and web-fed rotary letter presses, offset presses, rotary gravure presses, and aniline-ink presses; thermographic presses; and duplicating machines, including but not limited to ink ribbon, gelatin, spirit, stencil and reproducing typewriter principle machines and multilith and Davidson duplicators.

Changes in Paper Order L-120

SEVERAL changes in the requirements of Limitation Order L-120, which controls the standardization and simplification of paper and paperboard, were announced by the War Production Board on May 18. The first change covered by amendment of Direction 1 to the order, requires that the weight limits set out in the several schedules of the order determine the weights of new paper produced and used for converting purposes. Although some weights permitted in the use schedules exceed weights of new production, the use schedules remain in effect as they are designed to permit utilization of paper produced prior to the establishment of the present manufacturing weights, Paper Division officials said.

Will Make Quota Paybacks

THREE newspapers in Wisconsin, Iowa and Michigan have been charged with over-use of about 159 T. of newsprint paper, in violation of newsprint Order L-240, the Compliance Division of the War Production Board reported early in June.

The newspapers are the *Wisconsin State Journal*, published at Madison, the Davenport (Ia.) *Democrat* and *Leader*, and *The Evening News*, published at Sault Sainte Marie, Mich. All the corporations admitted their violations and agreed to make quota paybacks, according to terms of the consent orders issued by WPB June 2, WPB said.

Rotogravure Printing Booklet

Gotham Ink & Color Co. has published an 8 p. with cover booklet entitled: "Rotogravure Printing." The text of the booklet contains brief elementary description of the elementals of the printing processes. The greater part of the booklet, however, as the title indicates, is devoted to a very good description of the rotogravure printing process. A copy may be obtained direct from the company or *Printing Equipment Engineer* will gladly pass along your request.

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American Industry well merits a decoration for its brilliant record in the Mighty 7th! But, as our newly decorated Pacific heroes quickly return to combat, so industrial leaders aren't resting on their laurels. ***Back into Bond action***—they are now busy consolidating recent Payroll Savings Plan gains!

First, many executives are now patriotically working to retain the substantial number of new names recently enrolled during the 7th War Loan. By selective resolicitation, they are urging all new subscribers to maintain Bond buying allotments.

Second, many are also employing selective resolicitation to urge every worker who increased his or her subscription in the 7th to continue on this wise, saving-more-for-the-future basis.

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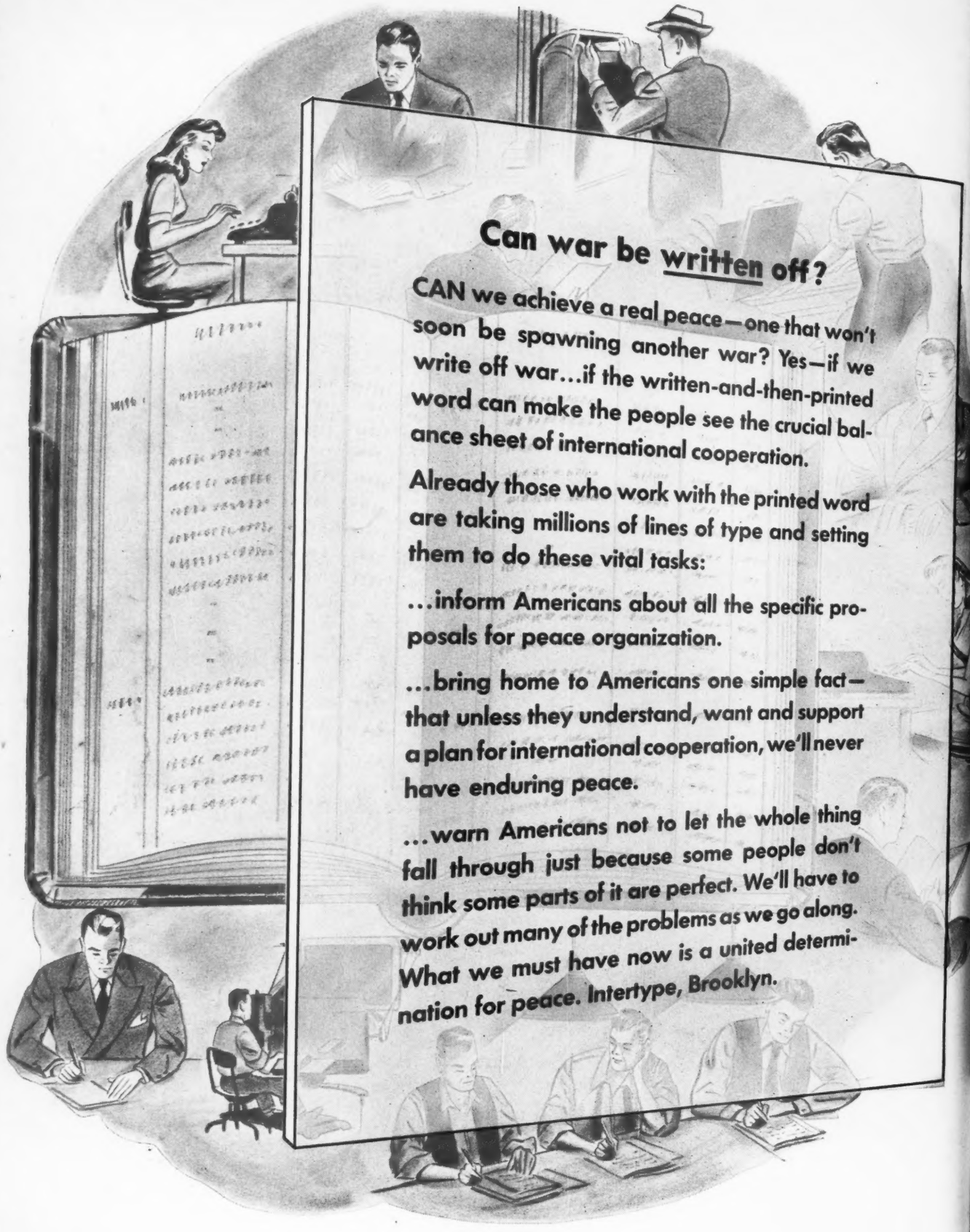

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Already those who work with the printed word are taking millions of lines of type and setting them to do these vital tasks:

...inform Americans about all the specific proposals for peace organization.

...bring home to Americans one simple fact—that unless they understand, want and support a plan for international cooperation, we'll never have enduring peace.

...warn Americans not to let the whole thing fall through just because some people don't think some parts of it are perfect. We'll have to work out many of the problems as we go along. What we must have now is a united determination for peace. Intertype, Brooklyn.

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